HOLDEN

OWNER HANDBOOK
JD SERIES

Owner's Name ..... Model Name .....

Address ..... Reg. No. ..... Eng. No. .....

Town ..... Vehicle Identification No. (V.I.N.) .....

State ..... Postcode ..... Date of Purchase ..... Odometer Reading .....

Vehicle Identification Certificate

Selling Dealer's Stamp & Signature .....

Pre Delivery Checklist ..... Page 117

Delivery Certificate ..... Page 118

CHANGE OF ADDRESS/OWNERSHIP

GMH requests that owners who change their address (or name) or subsequent owners who purchase this vehicle, complete and return by mail one of the forms on page 147.

This notification is important even after the expiration of the original vehicle warranty in order that GMH will be able to contact you should the need arise.

Part No. 92025700
Oct. 1984 (Print 1)

GENERAL MOTORS-HOLDEN'S SALES PTY. LIMITED

(Incorporated in Victoria)

New Vehicle Warranty

GENERAL MOTORS-HOLDEN'S SALES PTY. LTD. HEREBY WARRANTS THAT IT WILL MAKE GOOD, WITHOUT CHARGE, ANY DEFECT WHICH APPEARS IN THE VEHICLE IDENTIFIED IN THE VEHICLE IDENTIFICATION CERTIFICATE FOUND ON THE INSIDE OF THE FRONT COVER.

Provided

1. the defect has been notified to an authorised GMH Dealer or Service Dealer:
   (a) before the vehicle has travelled a distance of 20,000 km, or:
   (b) within 12 months of the date of delivery of the vehicle to the first retail purchaser (or in the case of a Demonstrator vehicle within 12 months of the date when it was first placed into service by the Dealer)
   whichever comes first, and
2. the vehicle has been returned to an authorised GMH Dealer or Service Dealer

And

3. the Dealer has determined that the defect complained of *is* one of material or workmanship and *is not* caused by:
   (a) misuse or abuse of the vehicle such as by racing, rallying, overloading, etc. or by neglect
   (b) operation of the vehicle after it is known to be defective
   (c) accident or deliberate act
   (d) atmospheric fallout or flood, hail, salt, etc.
   (e) failure to carry out proper maintenance service
   (f) alteration or modification of the vehicle
   (g) the fitting of parts or accessories not marketed by GMH
   (h) any work carried out on the vehicle by someone other than an authorised GMH Dealer or Service Dealer,

BY THE DEALER (or as otherwise decided by GMH Sales) MAKING GOOD THE DEFECT BY REPAIR OR, AT THE OPTION OF GMH SALES, BY REPLACEMENT.

Excluded from this Warranty are

- defects in tyres (these being warranted by their manufacturers), and services such as engine tuning, brake adjustment, replacement of air and oil filters, wiper rubbers, etc. which are required as part of normal vehicle maintenance.

This Warranty applies only to vehicles operated in Australia and is given to the person who is entitled to possession of the vehicle whether as owner, lessee or otherwise and is given in addition to all rights conferred by law on that person.

Owners of vehicles operated outside Australia should consult their local dealer regarding the warranty applicable to their vehicles.

Notice to Customers

No GMH dealer or other person is authorised or permitted to give or make any statement, assertion or undertaking in relation to the quality, performance, characteristics, descriptions or fitness for any purpose of any GMH product or in connection with the supply of any GMH product, which is at variance with any written statement, assertion or undertaking on any of these subjects given or made by General Motors-Holden's Limited or General Motors-Holden's Sales Pty. Ltd. in its published sales literature, and neither company accepts any liability for any such unauthorised action.

General Motors-Holden's Limited and General Motors-Holden's Sales Pty. Ltd. have franchised dealers in many parts of Australia for the sale of service parts and the provision of service to owners of GMH's products. Every endeavour is made to ensure that such dealers carry adequate stocks of service parts, and are equipped to provide satisfactory service, but neither General Motors-Holden's Ltd. nor General Motors-Holden's Sales Pty. Ltd. makes any promise that such parts or service facilities will be available, or available at any specific location or any particular time.

GMH Parts and Accessories Warranty

General Motors-Holden's Limited warrants in respect of GMH parts and accessories required as replacement parts, that it will make good by repair or at its option by replacement any defect occurring in any such GMH parts and accessories within 12 months from the date of acquisition or in the case of a GMH part or accessory which has been installed in a vehicle by a GMH Dealer or Service Dealer before such vehicle has travelled a distance of 20,000 kms from the date of installation, whichever first occurs.

Maintenance items such as filters, spark plugs, wiper blades and brake pads/linings will require replacement as part of normal vehicle maintenance. Such replacements are not the subject of this warranty.

HOLDEN CAMIRA JD SEDAN & WAGON OWNER HANDBOOK

This handbook should be considered a permanent part of this car. It should stay with the car when sold to provide the next owner with important operating, safety and maintenance information.

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This handbook applies to all JD Series models and therefore may contain explanations of some equipment not installed in your vehicle.

ALL INFORMATION, ILLUSTRATIONS & SPECIFICATIONS IN THIS HANDBOOK ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF PRINTING. GENERAL MOTOR'S HOLDENS LIMITED RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION.

INTRODUCTION

We thank you for choosing Holden and want to assure you of our continuing interest in your motoring pleasure and satisfaction.

This handbook has been prepared to acquaint you with the operation and maintenance of your new vehicle and to provide important safety and warranty information.

When it comes to service, remember that your GMH Dealer has the trained personnel and specialised equipment to correctly service your vehicle. Your dealer invites you to return for all of your service needs both during and after the warranty period.

To help dealers handle your needs, GMH has a number of Zone Offices throughout the country. If you have a problem that has not been handled to your satisfaction follow the steps in Section 4 of this handbook.

For the proper maintenance and performance of the vehicle, use only genuine General Motors parts which are identified by one of the trademarks shown above.

THE USE OF PARTS, ADDITIVES AND/OR TREATMENTS OTHER THAN THOSE MARKETED BY GENERAL MOTORS MAY BE DETRIMENTAL TO YOUR VEHICLE'S PERFORMANCE AND SAFETY AND MAY VOID YOUR NEW VEHICLE WARRANTY.

SECTION 1A

WARRANTY — QUESTIONS & ANSWERS

This section is designed to assist you in understanding the terms of the GMH Warranty provided with your new vehicle.

The following are some of the most frequently asked questions for which detailed answers have been provided.

1. **Q. How do I go about obtaining GMH Warranty Service?**

   A. It is the responsibility of the Selling Dealer to provide GMH Warranty Service therefore you should take your vehicle to that Dealer whenever GMH Warranty Service is required. However, if it is not possible for you to take your vehicle to the Selling Dealer (for example — if you are on a long trip, have shifted to another location or have other difficulties) you may take your vehicle to any other Authorised GMH Dealer. The Owner and Vehicle Identification details recorded on the inside front cover of this handbook are required by the Servicing Dealer in connection with the provision of GMH Warranty Service. Therefore, you should present this Handbook to the Servicing Dealer whenever you request GMH Warranty Service.

   NOTE: 1500 kilometre Warranty Service may be carried out by another GMH Dealer provided you have a letter of Introduction from the Selling Dealer. This letter must be arranged prior to obtaining the 1500 kilometre service.

2. **Q. What should I do if in an emergency. GMH Warranty Service is required and an Authorised GMH Dealer is not available to provide such service at that time?**

   A. If in an emergency a repair, replacement or adjustment of a kind covered by the GMH New Vehicle Warranty is required to enable your vehicle to be operated safely and it is not practicable for you to have that service performed by the Selling Dealer or another Authorised GMH Dealer, the service, but only to the extent that it is necessary to enable your vehicle to be operated safely may be performed by any other qualified service technician or repairer. A claim for the reasonable cost of such service may be made on GMH through the Selling Dealer or the Authorised GMH Dealer who would normally provide you with GMH Warranty Service. When such emergency service has been performed by other than the Selling Dealer or an Authorised GMH Dealer you should take your vehicle to the Selling Dealer or an Authorised GMH Dealer for inspection of the service and/or the completion of any required GMH Warranty Service as soon as possible.

3. **Q. What should I do if my vehicle becomes unsafe or inoperative as a result of a defect which is covered by the GMH New Vehicle Warranty.**

   A. If, as a result of a defect which is covered by the GMH New Vehicle Warranty your vehicle cannot be driven or is unsafe to drive you should contact the nearest Authorised GMH Dealer as soon as possible and arrange for that Dealer to carry out the required GMH Warranty Service.

4. **Q. Will I have to pay for any costs or expenses in connection with the provision of GMH Warranty Service?**

   A. All parts and labour used and supplied in carrying out GMH Warranty Service at the premises of the Servicing Dealer are free of charge. Whenever GMH Warranty Service is to be carried out by the Servicing Dealer it is your responsibility to deliver your vehicle to the Servicing Dealer's premises and to collect it from those premises when the Warranty Service has been completed.

   If as a result of a defect which is covered by the GMH New Vehicle Warranty your vehicle cannot be driven or cannot be driven safely and you arrange for the nearest Authorised GMH Dealer to carry out the required GMH Warranty Service, such reasonable costs and expenses as are incurred in moving your vehicle to that Authorised GMH Dealer's premises or, if that Dealer so elects, in performing the required GMH Warranty Service at the place where your vehicle is located (or at some other location) will be covered by the GMH New Vehicle Warranty.

5. **Q. Are damage or injury, loss of time, inconvenience, commercial or other direct or indirect loss covered by the GMH New Vehicle Warranty?**

   A. No, these items are not covered. The GMH New Vehicle Warranty covers only the repair, replacement or adjustment at the Servicing Dealer's premises of those parts of your vehicle which are found by GMH to be defective in materials or workmanship during the GMH Warranty Period. No other types of claim for compensation of whatever nature, notwithstanding that the same may have resulted from or have arisen as a consequence of a defect in materials or workmanship in your vehicle or in any part of your vehicle, will be recognized under the GMH Warranty. The rights and remedies which are available to you under any relevant Statutory Enactment or otherwise at law in connection with any such claim for compensation must be pursued outside the ambit of the GMH Vehicle Warranty.

6. **Q. Will I have to pay for Maintenance costs during the Warranty Period?**

   A. Maintenance costs, since they do not arise from defects in materials or workmanship, are not covered by the GMH Vehicle Warranty. However, the scheduled 1500 kilometre service specified in Section 6B of this handbook is free of charge (except for any lubricants used) provided that your vehicle has been operated under **normal** conditions and provided also that no modifications (other than a modification made by or at the direction of GMH) has been made to your vehicle which adversely affects the performance and/or compliance of your vehicle. The Maintenance Schedule in this handbook specifies the minimum maintenance requirements for vehicles operating under **normal** conditions. If you operate under **extreme** conditions your vehicle may require more frequent maintenance services. Refer to "Vehicle Operating Conditions" in Section 6B for clarification of normal and extreme conditions.

   The Maintenance items, except where they are required as a result of defects in materials or workmanship, for which you will be required to pay include:—

   - Engine tune-up — includes replacing spark plugs.
   - Replacement of all filters.
   - Cleaning or flushing of fuel, cooling, brake, engine, transaxle or power steering systems — after 1,500 kilometres.
   - Adding to or replacing lubricants.
   - Adding to or replacing air conditioning refrigerant — after 5,000 kilometres.
   - Any necessary adjustments to drive belts, transmission, clutch, parking brake, etc.

- Replacing wiper blade rubber elements.
- Wheel balancing — after 5,000 kilometres.
- Wheel alignment.
- De-dusting or de-glazing of brake linings or pads — after 1,500 kilometres.
- Brake lining wear or damage.
- Brake disc pad or disc wear.
- Battery re-charging.
- Paint, bright metal finish and trim, due to normal deterioration.
- Body panel, adjustment — after 1,500 kilometres.
- Door, engine hood or rear compartment lid lock adjustments.
- Glass or channel adjustments — after 1,500 kilometres.
- Body rattles, squeaks and general tightening of bolts, fastening and fittings — after 1,500 kilometres.
- Chipped glass or breakage.
- Torn or damaged floor mats or carpets.

7. **Q. Are my tyres covered by the GMH Vehicle Warranty?**

   A. No. The tyres fitted to your vehicle are covered by a separate warranty provided by the tyre manufacturer.

   This warranty arrangement does not deprive you of any of those rights and remedies which are conferred upon you by Statutory Enactment.

   Either the Selling Dealer or the Servicing Dealer will assist you by discussing any queries which you may have with respect to the tyre manufacturer's warranty, with the tyre manufacturer's representatives.

8. **Q. Are GMH Parts and Accessories covered by warranties?**

   A. If you purchase a GMH Part or Accessory from an Authorised GMH Dealer it will be warranted by that Dealer under the GMH Parts and Accessories Warranty against defects in materials or workmanship for a period of 12 months from the date on which you purchased it. In the case of a GMH Part or Accessory which has been installed in a vehicle by a GMH Dealer or Service Dealer it will be warranted for a period of 12 months or a distance of 20,000 kms from the date of installation, whichever occurs first.

   Maintenance items such as filters, spark plugs, wiper blades and brake pads/linings will require replacement as part of normal vehicle maintenance. Such replacements are not the subject of this warranty.

9. **Q. What should I do if I have any problems in obtaining GMH Warranty Service?**

   A. If you encounter any problems in obtaining GMH Warranty Service you should firstly discuss your problems with the Service Manager of the Servicing Dealer. If you cannot resolve your problem with the Service Manager then try and resolve it with the Dealer himself. If you still have a problem at this stage then you should contact the GMH Owner Relations Manager in your State. The addresses of these Owner Relations Managers are listed in Section 4 of this handbook.

SECTION 1B SAFER MOTORING — PRECAUTIONS

This handbook contains many CAUTION notices which are there to help safeguard yourself and your vehicle.

Please read these notices carefully and follow all instructions given.

Several safety items, including some which appear later in this handbook, are presented here as a safety summary. For a more detailed explanation of some items, refer to the appropriate section of this handbook.

ENGINE EXHAUST GAS

Avoid inhaling exhaust gases because they contain carbon monoxide, which is a dangerous gas that can cause unconsciousness and is potentially lethal.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA SUCH AS THE GARAGE ANY LONGER THAN IS NEEDED TO MOVE THE VEHICLE.

DO NOT SIT IN A PARKED VEHICLE FOR ANY EXTENDED PERIOD OF TIME WITH THE ENGINE RUNNING.

If at any time you think exhaust fumes are entering the car, have the cause determined and corrected as soon as possible.

SEAT BELTS

Various road laws require the wearing of seat belts. It is important that the habit of using these should be developed by yourself and others in the vehicle. In the interest of safety, seat belts should be checked regularly. Your Dealer will inspect and check the belts for you as part of the normal Maintenance Service. Never attempt to modify or change the seat belt away from the original specification as this will affect the operation of the belts and reduce their effectiveness in preventing injury in an accident.

ANTI-THEFT IGNITION STEERING LOCK

DO NOT turn the ignition switch away from the ON position while the vehicle is in motion as this renders ineffective any power assisted equipment fitted to your vehicle.

Never remove the key while the vehicle is in motion as this will lock the steering of the vehicle and render it inoperative.

BRAKES

Driving through water may affect performance. Applying the brakes lightly will indicate whether they have been affected. To dry them quickly, lightly apply the brakes while maintaining a slow forward speed with an assured clear distance ahead until brake performance returns to normal.

Brake pedal travel should not be obstructed by ill-fitting floor mats or any other material under the pedal which causes interference with normal pedal movement.

Also your seat should be positioned so that you can reach the brake pedal satisfactorily under all braking conditions.

Power Assisted Brakes

Power assisted brakes which are fitted to your vehicle utilise vacuum from the engine when it is running. Never let the vehicle run down steep grades without the engine running. **Never** coast with the engine switched off.

COOLING SYSTEM

If the cooling system is hot, the filler cap on the coolant surge tank MUST NOT be removed quickly — it should be unscrewed part of a turn to allow residual pressure to escape before removing completely. Before doing this, cover the cap with a thick cloth to avoid possible scalding.

HIGH ENERGY IGNITION SYSTEM

Engines fitted with High Energy Ignition Systems can produce high tension voltages in the primary and secondary circuits which are dangerous. Any work carried out must be done with utmost care. Before removing or refitting any parts or electrical connections, ensure that the ignition system is switched off and the battery disconnected.

Care should be taken when servicing, to avoid contact with conductive parts to avoid severe electrical shock.

PETROL FUMES

Always stop the engine and do not smoke or allow open flames or sparks near the vehicle when refuelling. If petrol fumes are noticed while driving, the cause should be determined and corrected without delay.

PARKING

When leaving your vehicle unattended:

1. Apply the parking brake.
2. Shift transmission selector as follows:
   Manual Transmission — If car is facing downhill, place in Reverse gear.
   — If car is facing uphiii, piace in First gear.
   Automatic Transmission — Place in 'Park'.
3. Turn ignition key to Lock and remove key.
4. Shut all windows and lock all doors.

TYRE TRACTION

A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other material is on the road surface. Driving practices and vehicle speed should be adjusted to the road conditions.

LOOSE ARTICLES

Do not leave loose articles or luggage in the passenger compartment. Whenever possible, stow articles in the luggage compartment. For wagons, loads stowed in the luggage area should be firmly secured.

VEHICLE BATTERY

Batteries emit an explosive gas mixture which may be ignited by sparks or naked flames. You should therefore keep sparks and flames away from the battery at all times and never smoke near a battery.

Batteries contain sulphuric acid. If acid contacts skin or clothing, flush immediately with lots of water. In case of eye contact, flush with lots of water and contact a doctor immediately.

Take care with all metal objects and tools including items you may wear (e.g. jewellery, rings and metal watchbands) near battery terminals. Metal objects that touch battery terminals can cause sparks and serious heat burns to the user or wearer.

SECTION 1C

GENERAL EXTERIOR/ INTERIOR ITEMS

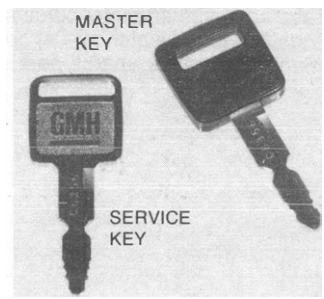
KEYS AND LOCKS

Your Camira is fitted with a two key locking system which provides security for personal valuables when parking in car parks or similar areas where locking of the vehicle is not permitted.

Master Key

Master key (plastic head) is retained by the driver and operates all locks on the vehicle.

The key code number is stamped on the metal shaft. Before placing the key on your key ring, record the code number and place it in a safe place so that if the key is lost, duplicates can be ordered from any GM-H Dealer by quoting the key code number.



Service Key

Service key is left with the vehicle when it is parked in those areas described above and operates all locks excepting the glove and luggage compartments and wagon tailgate. This enables the vehicle to be moved if required but does not allow entry to the glove or luggage compartments.

Unlocking Doors

Both front doors can be unlocked with either key from the outside by turning the key before lifting the handle to open the door.

NOTE: Doors have a free-wheeling lock mechanism. This means that the doors cannot be opened from the outside or inside unless the locking button is raised.

Locking Doors

From Inside:
To lock, push down the locking button in the window ledge. To unlock lift the button.

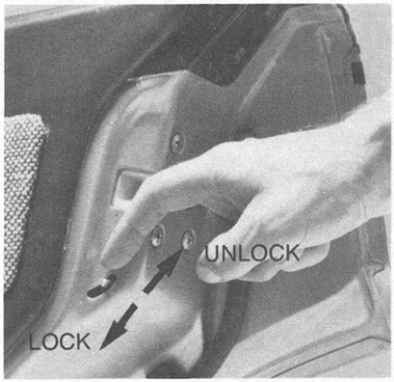
From Outside:
To lock front doors — push down the inside locking button then shut the door whilst keeping the door handle raised.

To lock rear doors — push down on the inside locking button then shut the door.
Do not slam doors or push on the window areas.

Rear 'Child Proof' Door Locks

This added safety feature is built into both rear door locks. To operate it push the lever **down** as far as it will go and close the door. The door cannot now be opened from inside regardless of the locking position. To disengage, open the door from outside and push the lever **up** as far as it will go.

CAUTION: For safety, you should check that the lock is operating correctly, after setting, by attempting to open the door from the inside of the vehicle.



Glove Compartment Lock

To lock, insert the master key, rotate clockwise one half of a turn and then withdraw.

To unlock, insert the key and rotate anti-clockwise one half of a turn.

To open, squeeze the two slides of the catch together and pull towards you. To close, push lid firmly back into place. This will engage the catch.

The light inside the glove compartment will come on and go off with the opening and closing of the compartment lid.

Fuel Cap Lock (Where Fitted)

Lock or unlock with either key.

To unlock fuel cap, insert key and turn anti-clockwise. The cap can now be removed by turning in anti-clockwise direction.

Reinstall cap by turning clockwise until stop is reached. Lock cap by turning key in clockwise direction.

Sedan Luggage Compartment Lock

To unlock, turn the master key clockwise. The lid opens automatically. The compartment lid locks automatically when pushed shut.

The luggage compartment light will come on and go off with the opening and closing of the compartment lid.

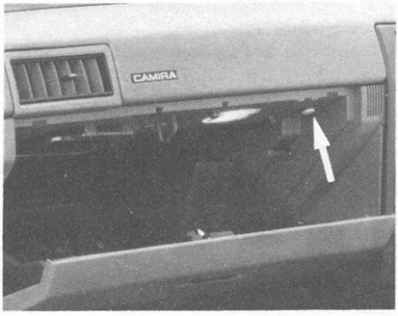
Remote Control Luggage Compartment Lock — Sedan

(Where Fitted)

In addition to the mechanical lock release, the luggage compartment lid may be provided with an electrically operated release system.

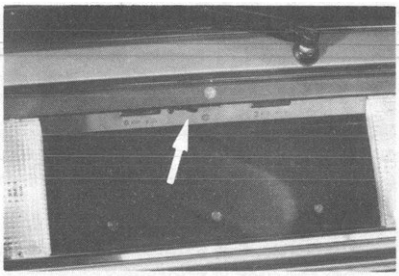
The luggage compartment lock may be released by depressing the push button switch located inside the glove compartment.

NOTE: If you leave your vehicle in a car park with the Service Key, ensure that glove box compartment is locked so that access to the luggage compartment via the remote control lock button is prevented.



Wagon Rear Door Lock

To open the rear door, insert the master key and turn. Lift the lever (as shown in illustration) to release the catch and then raise the door. The telescopic gas struts will assist in raising the door and supporting it in the fully open position. To close door, pull down and push firmly closed. The door should then be relocked. The light located in the rear loading area will come on and go off with the opening and closing of the rear door.



CAUTION: To prevent entry of dangerous exhaust fumes into the passenger compartment, the sedan luggage compartment lid and the wagon rear door should be closed during vehicle operation. However, if it is necessary to leave the lid or door open while transporting bulky cargo, all windows must be closed to avoid vacuum build-up. Open fresh air heater vents and switch to highest blower speed.

WINDOW CONTROLS

The door windows are lowered or raised by turning the winders which are fitted to each door.

REARVIEW MIRRORS

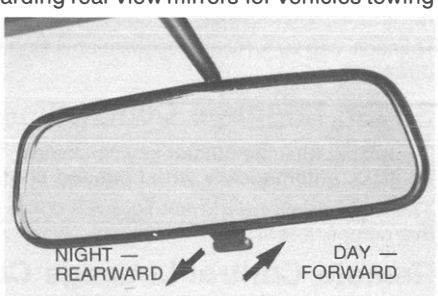
Adjust the outside and inside mirrors before driving. For safe driving, rear vision must be unimpaired. Observe State regulations regarding rear view mirrors for vehicles towing a trailer.

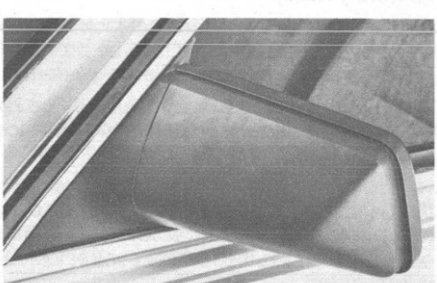
Inside Mirror

This is shatter-resistant, and mounted in such a way that it can be knocked out in case of accident to reduce the risk of injury.

Where the anti-glare mirror is fitted, a control lever on the lower edge of the mirror enables an anti-glare reflector to be used during night driving. This reduces headlamp glare from following vehicles.

During normal daylight operation, the lever should be set forward away from driver. To reduce glare at night, move the lever backwards towards driver.



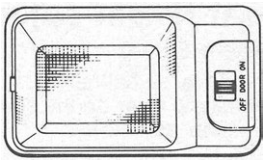


Outside Door Mirror

This mirror is hinged to allow it to be knocked without causing injury to pedestrians.

The remote control type mirrors (where fitted) may be adjusted by manipulating the lever located on the inside of the door.

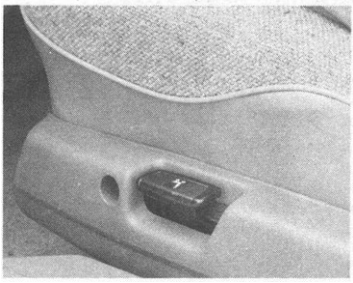
INTERIOR LIGHT



The interior light switch has three positions. 'OFF', 'ON' and 'DOOR'. When the switch is moved to the 'ON' position the light will come on. When moved to the 'DOOR' position the light will come on and go off with the opening and closing of the doors. In the 'OFF' position the light stays off all the time.

FRONT SEATS

Forward and Backward Setting



Raise the lever at the side of the seat then slide the seat to the desired position. Release the lever. Try to move the seat back and forth to check that the catch is fully engaged.

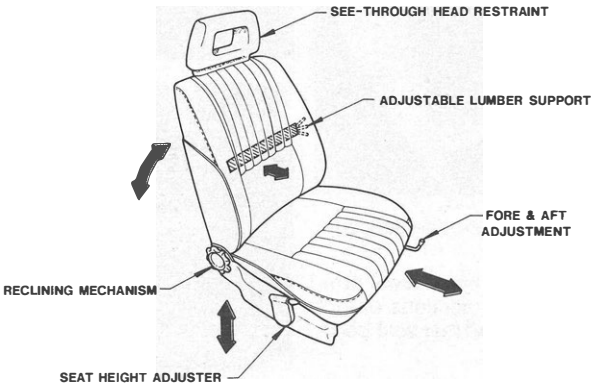
CAUTION: Do not adjust the driver's seat while the vehicle is moving. The seat could move suddenly and cause the driver to lose control of the vehicle.

Where a driver's seat height adjuster is fitted, the Fore/Aft lever is relocated at the lower front edge of the seat.

Reclining Back Control

The reclining back is controlled by a large toothed wheel at the bottom of the outer side of the seat. By turning the wheel, the reclining position of the seat can be changed through a large angle. The seat back will move in the same direction as the top of the wheel.

CAUTION: To avoid reducing the effectiveness of seat belts it is recommended that reclining seats be used in no more than a semi-reclined position when the vehicle is moving. The fully reclined position should be used only when the vehicle is stationary.

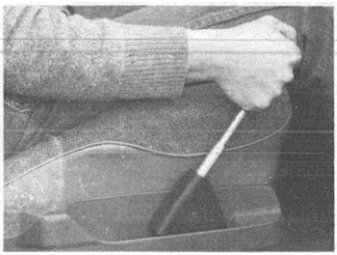


Seat Height Adjustment

(Where Fitted)

The driver's seat height is adjustable by extending the telescopic lever on the seat outer side and then moving lever as follows:

To lower seat — move lever towards front of vehicle.
To raise seat — move lever towards rear of vehicle.



Head-Restraint

This safety feature is not intended to be used as a headrest. It is solely for the reduction of possible injury that may result from a whip-lash neck movement following a vehicle collision. The head restraints are not adjustable in height.

Lumbar Support (Where Fitted)

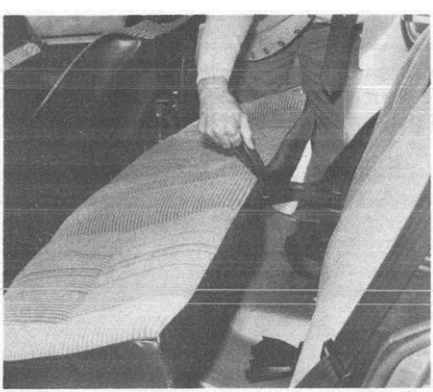
This feature is fitted to the driver's seat only and is adjusted by moving the lever situated on the inner (passenger) side of the seat back. The lumbar support can be adjusted to suit the degree of seat firmness that you require to support the middle of your back.

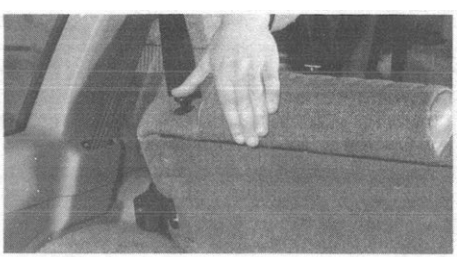
WAGON FOLD DOWN REAR SEAT

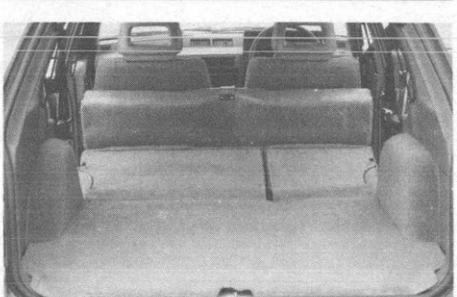
Conversion Procedure:

Step 1: Pull the tag which is at the rear centre of the seat to release the catch and raise the seat to an upright position.

Step 2: Unlock the catches on the top of the left and/or right side sections of the seat back by depressing the button(s).







Step 3: Fold left and/or right side sections of the seat back forward.

To reconvert, reverse the above procedure. Ensure that both sections of the seat back lock securely and that seat belts are free of the seat back.

SEAT BELTS

Study this section carefully. It is important that you understand how to correctly wear a seat belt. You should also ensure that all occupants wear a properly adjusted seat belt or child restraint system if applicable, whenever the vehicle is moving.

Retractor Belts

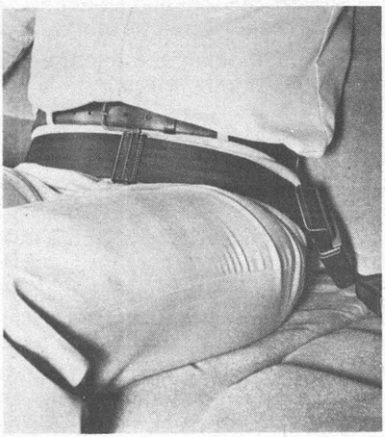
Before wearing a seat belt adjust the seat to your normal driving position.

To put on a retractor seat belt, pull the metal tongue across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a "click". To take up any slack, grasp the sash part of the belt and pull upwards until the lap section is fitting firmly across your hips. Any extra belt length will retract automatically.

The lap section should be worn as low as possible on your hips, not on your waist. Make sure the sash and lap sections of the seat belt are free from twists and are fitting firmly.

The emergency-locking retractor belt allows you to move freely while the vehicle is travelling normally. The belt will lock immediately on fast braking, impact with a solid object or any quick movement by the wearer.

NOTE: The belt may also lock-up if the vehicle is on a steep incline. It will become free again on level ground.



Lap-Type Belts

To adjust: Settle yourself comfortably. Bring the tongue adjuster across your body and clip it into the buckle. When the metal tongue has locked safely into place you will hear a "click". Make sure the belt is fitting firmly across the lower hip area and not across your waist.

To shorten: Tilt the tongue adjuster and pull the belt through the belt adjuster.

To lengthen: Tilt the tongue adjuster and pull the belt from just below the finger grip bar.

Maintenance of Seat Belts

- Check seat belts regularly. Replace the belts if they become frayed or damaged. The buckle and retractor mechanism operations should also be checked. Your GM-H Dealer will do these things as part of the Scheduled Maintenance Services.
- Seat belts must be replaced if they have been in use during a severe impact — even if there is no obvious damage.

- Clean belts only with a solution of mild soap and lukewarm water. Do not try to bleach or re-dye the belts.
- Do not allow the belts to retract until they are completely dry.

WARNING: Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.

Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.

Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.

It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.

Belts should not be worn with straps twisted.

Each seat belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

The positioning of the tongue restrictor must never interfere with or stop the belt from fully retracting.

INFANT AND CHILD RESTRAINTS

CHILDREN SHOULD BE RESTRAINED AT ALL TIMES WHEN RIDING IN A MOTOR VEHICLE.

In some states it is Law that children must be belted in whenever they are travelling in a vehicle in which seat belts are installed. CHILDREN ABLE TO SIT UP should be restrained with the regular seat belt or an approved child restraint.

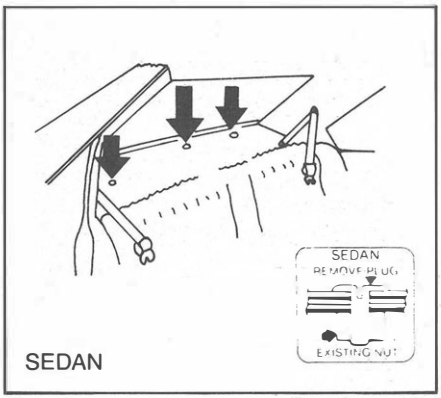
Where children are restrained with the regular seat belt and it is desired to raise their seating position this is to be done only by means of a support which is retained by the belt. NEVER USE A LOOSE CUSHION AS THIS COULD ALLOW SERIOUS INJURY IN THE CASE OF VEHICLE COLLISION.

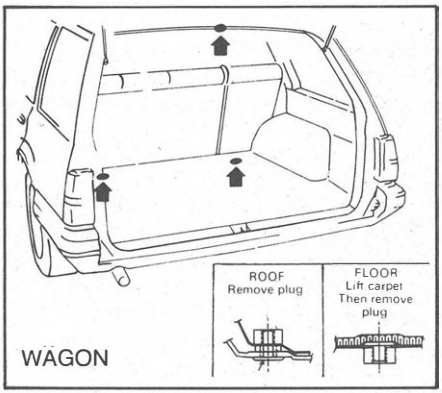
Child Restraint Anchorages

Your vehicle is fitted with upper anchorage points for child restraints and these are located as follows:

Sedan
Anchorage points are located on the rear window ledge. Remove the plugs and install child restraints with the correct anchor bolts.

Wagon
Anchorage points are located on the floor behind the rear seat and in the roof. Remove the plugs and install child restraints with the correct anchor bolts.





WARNING: Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.

Only approved child restraint harnesses should be used on anchorage points. See your GM-H Dealer for advice about the various types of approved child restraints available.

INFANTS UNABLE TO SIT BY THEMSELVES should be carried in a padded bassinet or carry basket placed across the back seat.

A suitable type of bassinet restraining system should be used.

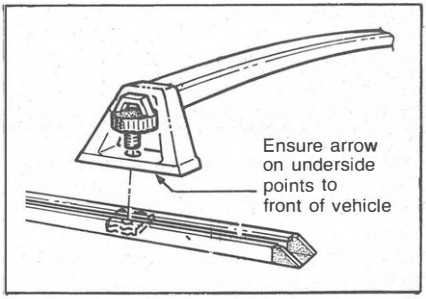
The GM Child Love Seat is designed for children weighing 9 to 19 kg, up to 1 metre in height, who are able to sit up alone.

ROOF LUGGAGE CARRIER

(Where Fitted)

If your vehicle is fitted with the optional roof luggage carrier, ensure that the cross bars are installed so that the arrow on the underside of the stanchion is pointing towards the front of the vehicle. If the cross bars are fitted in the reverse position, excessive wind noise will result.

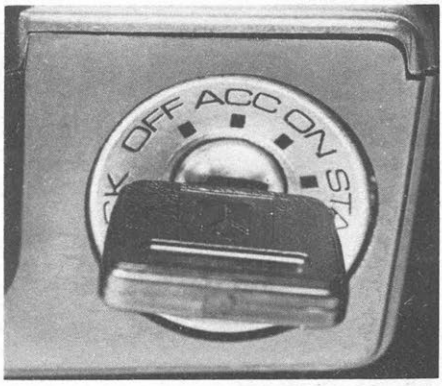
For roof rack loading information refer to 'Loading Your Vehicle' in Section 2.



SECTION 1D STEERING COLUMN CONTROLS

IGNITION LOCK

This is an anti-theft lock and is situated on the right side of the steering column. It has five positions.



LOCK — The key can be inserted or removed only when the switch is in this position. This is the normal parking position, and locks the ignition and the steering wheel when the key is removed.

OFF — Permits turning the engine off without locking the steering wheel.

ACC — This allows you to use the electrical components — lighter, radio, etc. — when the engine is not running. To reduce battery discharge, switch off all non essential components.

ON — Normal operating position. The ignition circuit and the electrically operated instruments are energised.

START — This cranks the engine. Immediately the engine starts take your hand off the key and allow it to return to **ON** position.

CAUTION: Do not turn the engine off while the vehicle is in motion as this renders ineffective any power assisted equipment operated off the engine. Never remove the key while the vehicle is in motion as this will lock the steering of the vehicle.

NOTE: If the steering lock is difficult to disengage when the vehicle has been parked with the tyres hard up against the kerb or with the steering wheel off-centre it may be necessary to rotate the steering wheel slightly to free up the ignition steering lock.

POWER STEERING (Where Fitted)

This system has been designed to reduce steering effort. It uses hydraulic pressure to lighten steering loads and is designed so that "road feel" is retained. Care should be taken not to hold a turning force on the steering wheel when stationary (i.e. when waiting before turning a corner, etc.) as this creates unnecessary, high operating pressures within the system.

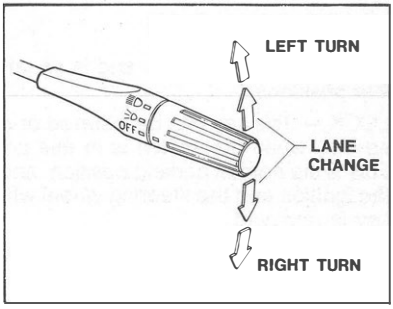
If the power steering is rendered ineffective because the engine has stalled, the drive belt broken or if the pump reservoir is empty of fluid, the car can still be steered. However, due to the much greater effort required to steer, it is recommended that you have the problem fixed promptly.

TURN-SIGNAL/LIGHT-SWITCH LEVER

The turn signal lever on the right side of the steering column also operates the light switch and headlight high beam and low beam.

Turn Signal & Lane Changing

To signal a left turn push the lever right up. To signal a right turn push the lever right down. When the turn is completed, the signal will cancel automatically and the lever will return to the neutral position.

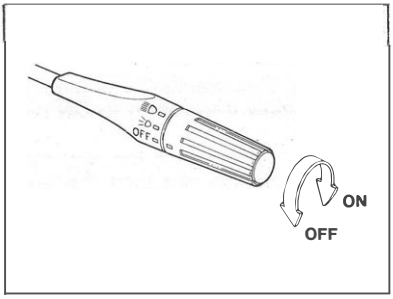


The green turn signal indicator lights mounted in the intsrument panel are designed to flash to tell you that the front and rear turn signal lights are working. They are accompanied by an audible clicking sound. If the green indicator lights do not flash, start to flash slower or faster than usual or if you cannot hear them clicking have them checked promptly.

To signal a lane change, move the lever only part way in the direction of turn till the indicator light flashes and hold it there while the lane change is completed. The signal will automatically cancel when the grip on the lever is released.

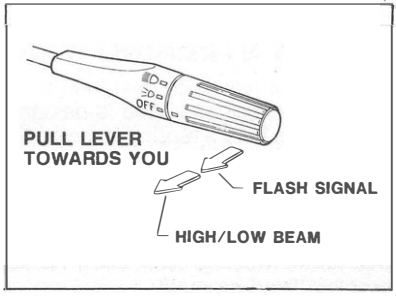
Light Switch

The light switch is located on the end of the turn signal lever. The lights are operated by turning the knob in a forward direction. The first position turned to will operate the following lights: tail, number plate, parking and instrument panel lights. The second position will operate the headlights and all the first position lights.



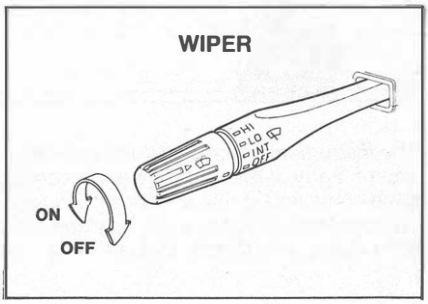
High/Low Beam

With the headlights on, pull the lever towards you until you hear a click, then release it. The headlights will change from low-beam to high-beam or from high-beam to low-beam. When the high-beams are on, a blue light located on the instrument panel will glow. It is also possible to flash the high-beam for signalling purposes, with the headlight switch turned on or off, by moving the lever towards you. A light resistance will be felt at the flash position. Further movement towards you will cause the dip switch to operate. The lights will remain on high-beam as long as the lever is held.



WINDSHIELD WIPERS AND WASHERS

The combination stalk on the left side of the steering column operates the wipers and washers when the ignition switch is on ON or ACC.



Wiper operation — The windshield wipers are operated by turning the knob on the end of the stalk to one of the following positions:

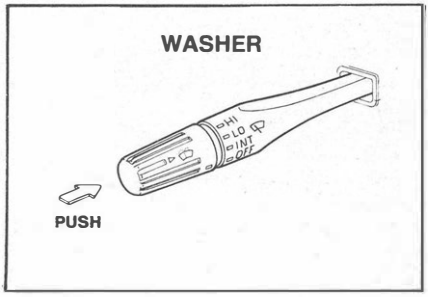
INT — (SLX and SLE only). The wipers will sweep once across the windscreen and return to their rest position repeating this cycle every several seconds.

LO — Slow Wiper Speed.

HI — Fast Wiper Speed.

NOTICE: Do not operate the wipers if the windshield is dry. They may scratch the windshield glass. Also, do not operate wipers if they are caked with snow or frozen to the windshield as this may damage the wiper system.

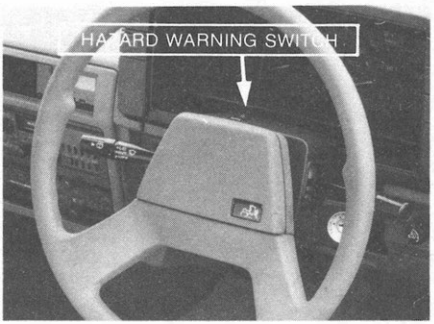
Washer operation — By depressing the button on the end of the stalk the electric washer pump is activated, spraying jets of fluid onto the area swept by the wiper blades, and will only continue while the button is depressed.



If the windshield wipers are not in operation at the time, depressing the button on the stalk will automatically activate them for a short period and then switch them off.

HORN

The horn is operated by pressing down on the pad located at the centre of the steering wheel. The horn does not require insertion of the ignition key to operate.



HAZARD WARNING SWITCH

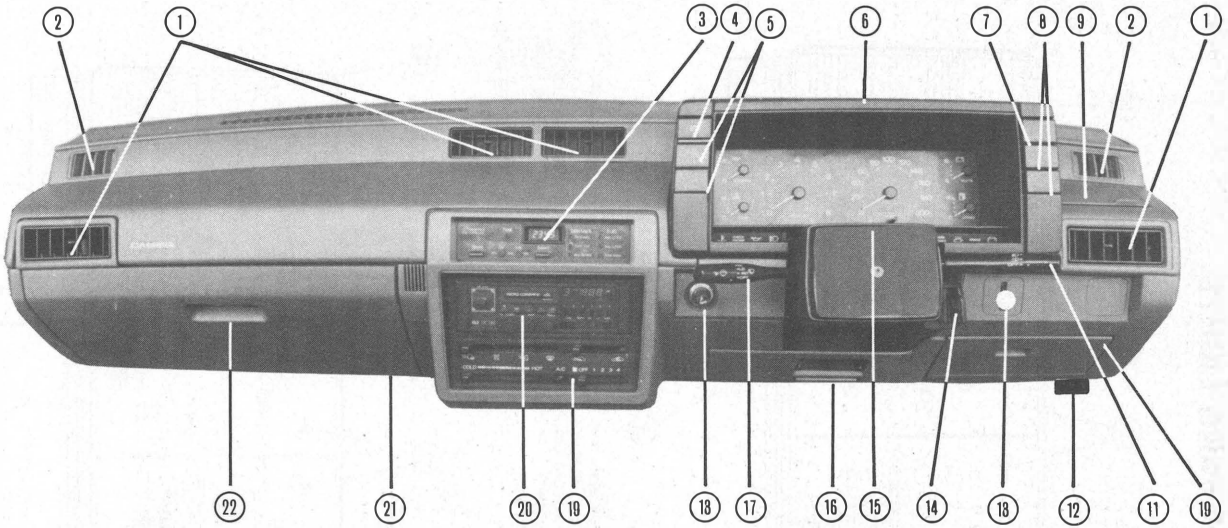
This is the button located on the upper side of the steering column shroud.

The operation and use of the hazard warning flasher is covered in 'In Case of Emergency' Section 3.

SECTION 1E

INSTRUMENT PANEL AND CONTROLS

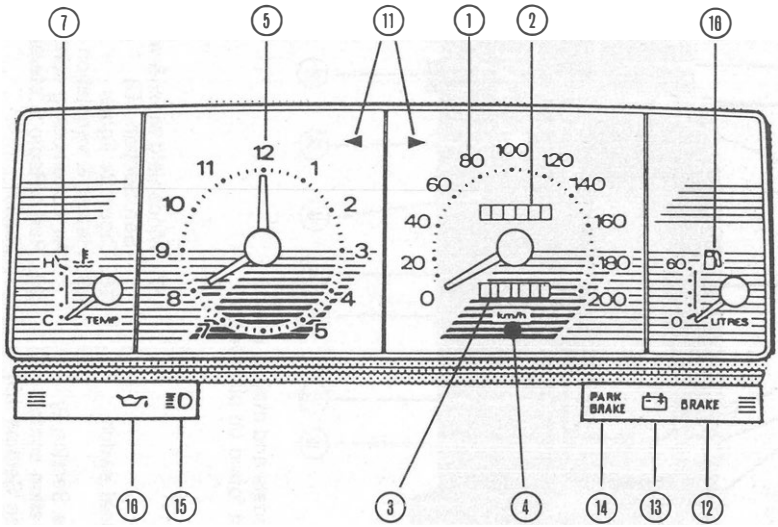
The instrument panel contains instruments, indicators, and controls necessary for the operation of many of the standard and accessory features. Review the instructions and illustrations contained in this section to acquaint yourself with the proper use of these instruments and controls. Glance at the instruments occasionally whilst driving to see if any indicator light is on, and to see that all meters and gauges are within the proper ranges.



NOTE: Some instruments and controls are standard on certain models and may or may not be available as options on other models. Fittings which are not found on all models are denoted with an asterisk*.

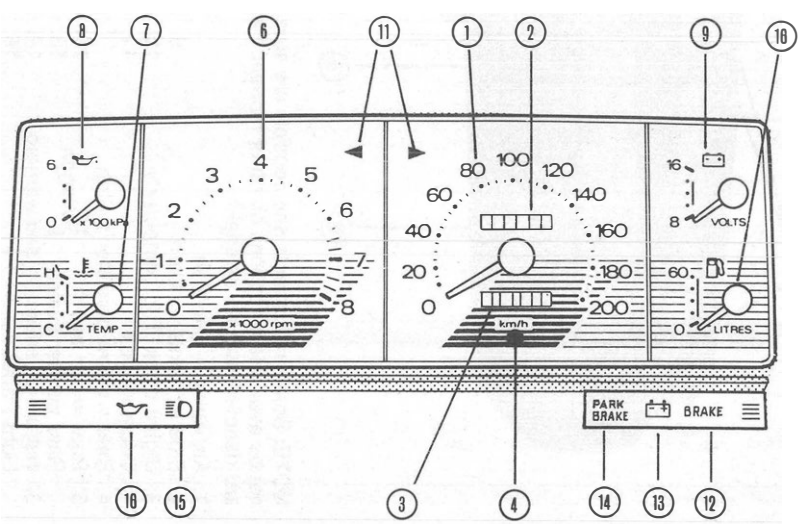
1. Air vents — movable
2. Side air vents — fixed
3. Digital clock*Trip computer*/ Oddment box*
4. Rear window demister switch
5. Rear wiper switch* } Wagon
   Rear washer switch* }
6. Instrument assembly and warning Light Panel
7. Power antenna switch*
8. Dummy switches
9. Coin box*
10. Fuse box
11. Light and turn signal switch (See Section 1D)
12. Hood release (See Section 9)
13. Instrument illumination control
14. Ignition switch (See Section 1D)
15. Hazard warning switch (See Section 1D)
16. Lap cooler vent
17. Windshield wiper & washer switch (See Section 1D)
18. Cigarette lighter
19. Heater & ventilation controls/ Air conditioning controls*
20. Radio/Radio & stereo cassette player*
21. Remote luggage compartment lid release* (inside glovebox)
22. Glove box lock

INSTRUMENTS AND WARNING LIGHTS
SL & SL/X Models



1. Speedometer
2. Odometer
3. Tripmeter
4. Tripmeter Reset Button
5. Clock
6. Tachometer
7. Coolant Temperature Gauge
8. Oil Pressure Gauge
9. Voltmeter
10. Fuel Gauge
11. Turn Signal Indicators
12. Brake Failure Warning Light
13. Generator Warning Light
14. Park Brake Warning Light
15. High Beam Indicator Light
16. Oil Pressure Warning Light

SL/E Models



1. SPEEDOMETER

The speedometer which indicates vehicle speed is calibrated from 0 to 200 kilometres per hour (km/h).

2. ODOMETER

The odometer is incorporated into the speedometer face and records accumulated distance travelled in kilometres.

3. TRIPMETER

A Tripmeter, which is also set into the speedometer face is used to record the distance travelled on a particular trip (up to 999.9 km).

4. TRIPMETER RESET BUTTON

The Tripmeter is set to zero by the push button.

5. CLOCK (where fitted)

This clock is electrically energized and operates continuously while the battery is connected. The time setting is adjusted by turning the knob located at the bottom edge of the clock face.

6. TACHOMETER (where fitted)

The tachometer records engine speed in revolutions per minute (r.p.m.) and is graduated from 0 to 8000 r.p.m. The section from 6,500 r.p.m. upwards is indicated in RED and continued or sustained operation in this section could cause serious engine damage.

7. COOLANT TEMPERATURE GAUGE

This gauge is calibrated to indicate the relative operating temperature of the engine cooling system.

Under most driving conditions the needle will remain within the operating band in the centre of the gauge.

Stop/start driving in heavy traffic, driving at sustained high speeds in warm weather, hill climbing or towing a trailer may cause the needle to move towards the "H". This is not dangerous. However, if the needle should move all the way to "H" position and remain there for more than 30 seconds, this signals an engine overheat condition and therefore you should stop the car as soon as it is safe to do so. Leave the engine idling whilst checking that the electric cooling fan is operating. If the needle does not return to the normal position within this time, stop the engine and inspect the cooling system according to the instructions given in Section 3 under "Engine Overheating".

8. OIL PRESSURE GAUGE (where fitted)

The oil pressure gauge indicates the relative operating pressure within the engine lubricating system.

Should the gauge fail to indicate a reading or if the needle moves towards the bottom of the gauge when the engine is running above idle speed, it should be stopped and the reason for the loss of oil pressure found and corrective action taken.

9. VOLTMETER (where fitted)

The voltmeter indicates the condition of the electrical charging system. Normally the needle will remain in the operating area of the gauge between 12 to 15 Volts approximately.

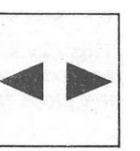
Needle movement to the lower zone indicates a low voltage condition. Needle movement to the upper zone indicates a high voltage condition.

In either of these cases, the electrical charging system will require checking; items such as the battery, voltage regulator, electrical wiring and connections or the generator-drive belt could be affected.

10. FUEL GAUGE

When the ignition key is turned to 'ON' the fuel gauge will indicate the approximate amount of fuel in the tank. The graduation marks are at 60 litres (full), 45 litres, 30 litres, 15 litres and 0 (empty).

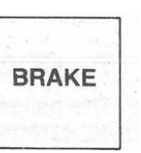
11. TURN SIGNAL INDICATORS



There are two arrow-head turn signal indicators which glow green when they are activated. The appropriate indicator will flash in the direction signalled by the turn signal lever.

Both green arrow-head turn signal indicators will flash continuously when the Hazard Warning Flasher button located on the top side of the steering column cover is depressed. (Refer Section 3 "In Case of Emergency".)

12. BRAKE FAILURE WARNING

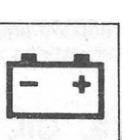


This light glows red when ignition switch is turned to the start position and the engine is cranking. This indicates the electrical circuit is functioning. It will cease to glow when the key is released and returns to the "ON" position. If the red sign glows at any other time, it indicates that there may be something wrong with the braking system.

Immediately the indicator light glows under these conditions, stop on the side of the road as carefully as possible. Do not proceed until satisfied that cautious progress is possible or that the cause of the problem has been located and rectified.

(Reference should be made to brake operations described in Section 2, "Starting, Driving and Towing".)

13. GENERATOR WARNING



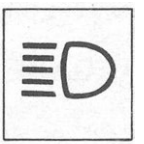
This red symbol will glow when the ignition switch is turned to the "ON" position. After the engine has been started, the light will turn off. If the light should glow while the engine is running it indicates that the generator is not charging. You should stop the engine and check the generator drive belt for looseness or breakage. If the belt is okay, there is a problem somewhere in the charging system. The problem should be corrected as soon as possible before the battery becomes discharged.

14. PARKING BRAKE WARNING

When the parking brake is applied with the ignition switch in the "ON" position, the red sign will glow until the parking brake is fully released.

15. HIGH-BEAM INDICATOR

When the headlamps are on high-beam a blue signal located in the Warning Light Panel will glow.

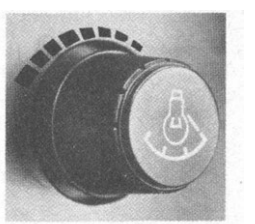


16. OIL PRESSURE WARNING

The red symbol will glow when the ignition switch is turned to the "ON" position. After the engine has been started, the light will turn off. If the light should glow when the engine is running above idle speed, stop the engine and do not operate it until the cause of **low** oil pressure is corrected.

INSTRUMENT LIGHTING CONTROL

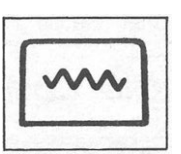
The brightness of the instrument lighting may be controlled by rotating the dimmer control located on the lower dash panel to the right of the ignition switch. This control only operates when the light switch is in one of the "ON" positions.



SWITCHES FOR ACCESSORIES

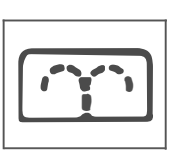
Rear Window Heater

The electrically heated rear window operates with the ignition in the "ON" position. To switch on, depress the touch switch and to switch off, depress the switch once more. An indicator light located underneath the symbol will glow when the heater is on. To avoid overloading the electrical system the heated rear window should only stay switched on until the rear window is clear. When cleaning the heated rear window take care not to damage the heating element.



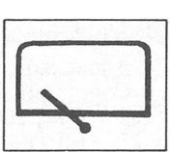
Rear Window Washer (Wagon)

The washer is operated with the ignition in the "ACC" or "ON" position. Water will spray on the window while the switch is depressed and will stop when you lift your finger off the switch.

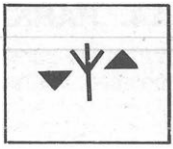


Rear Window Wiper (Wagon)

The rear window wiper operates with the ignition in "ACC" or "ON" position. To switch wiper on, depress touch switch, and to switch off, depress switch once more.

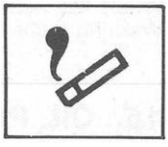


Radio Power Antenna (where fitted)



The power antenna will not operate unless the radio unit is switched on. The antenna can then be extended or retracted manually by pressing the appropriate side of the touch control switch. When the radio is turned off or the ignition switch is turned to "OFF" or "LOCK" the power antenna will retract automatically.

CIGARETTE LIGHTER



The cigarette lighter is activated only when the ignition switch is in the "ON" or "ACC" positions. To operate, simply press in the lighter knob. It will stay in until the element is hot at which time the lighter will automatically pop back to its original position ready for use.

DIGITAL CLOCK (where fitted)

The clock is electrically energised and time is displayed when the ignition is turned on.

The function of each button is as follows:

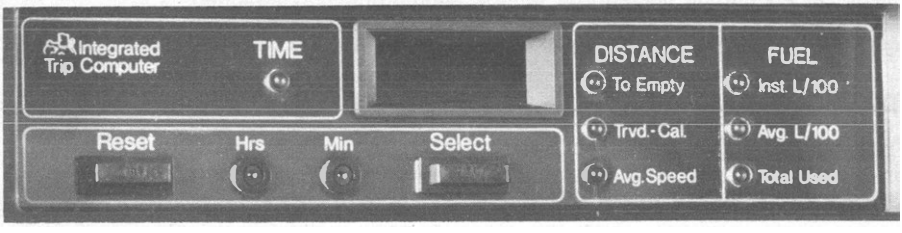
'Display'
Display button is pushed to display time with the ignition switched off. The display goes out when this button is released.

'Hrs'
Hour indicator is advanced one hour each time this button is pushed.

'Min'
Minute indication is advanced one minute each time this button is pushed.

The clock can be accurately set since the next minute will not display until 60 seconds after releasing the 'Min' button.

TRIP COMPUTER AND CLOCK (where fitted)



The integrated trip computer consists of:

- A four digit display panel.
- Control panel comprising four buttons:
  (1) Reset (Resets computer when pressed with select button)
  (2) Hrs (Adjusts hours on clock)

(3) Min (Adjusts minutes on clock)
(4) Select (Increments functions displayed)

- Time Function
- Function Module — comprising six DISTANCE/FUEL functions.

To Operate the Trip Computer

— When ignition is turned on the "time" function will be displayed irrespective of what function was being used at ignition turn off.

— Depressing the "Select" button will result in displaying the first function of the Function Module. Each time the "Select" button is pressed the computer goes to the next function. The functions are called up in the following sequence.

- Distance to empty (km)
- Distance travelled since reset (km)
- Average speed since reset (km/hr)
- Instantaneous fuel usage (litres/100 km)
- Average fuel usage since reset (litres/100 km)
- Total fuel used since reset (litres)
- Time.

The function being displayed on the Display Panel is indicated by a red light opposite that function on the Function Module. While the "Select" button is depressed the display will show zero.

Resetting

To reset the computer, firstly depress and hold the "Reset" button and then momentarily depress the "Select" button. This will reset all functions to zero with the exception of "Clock" and "Distance to Empty".

The computer can be reset at anytime, however, the following is considered normal practice:

— at each fuel tank refill. The computer will then give you results that are averaged out over each tank full of fuel.

— at beginning of a trip. This might involve many tank refills and results will then be computed over the total journey.

If the battery is disconnected and reconnected for some reason, the computer will need to be reset to ensure correct operation.

Clock

The clock is a 12 hour clock with a flashing decimal point.

When the battery is first connected the clock will show 12.00 and if 12.00 is not the correct time, appropriate setting is achieved by depressing the right hand flush button for minute adjustments and the left hand flush button for hours adjustment (use a pencil or like object). It is suggested that minutes be adjusted prior to hours because as the minutes pass 60 the hours number automatically increases by one.

The clock can be accurately set as the next minute will not display until 60 seconds after releasing the adjustment button.

Distance to Empty (DTE)

The distance to empty function is an estimate on how much further the vehicle can be driven on the fuel remaining in the tank, based on the rate of fuel usage for the previous 15 minutes.

The DTE readout is in whole numbers only. No computer can predict the future so the DTE function can only be an estimate based on previously obtained information. For this reason, as conditions become more suited for economical driving the distance to empty could increase, for example, from city to highway driving. After initial battery connection DTE will start at 500, the computer will then perform an initial update from a short average prior to commencing the normal long averaging process. The computer is equipped to flatten out fluctuations of fuel level in the tank and rate of fuel usage. It will update the readout after the consumption of approximately 0.3 litres of fuel.

Due to the high fuel level fluctuations whilst moving, the distance to empty displayed is averaged over a period of 15 minutes. This does not matter during normal operation but after filling with fuel a long delay to display a sensible DTE would not be acceptable. After a fill of 10 litres or more the computer will calculate the DTE from a short average at the next normal update and the long averaging will proceed from the new figure.

Distance travelled/Calibrate

This function shows the distance travelled in kilometres since the computer was reset, it shows two decimal points up to 100 km and whole numbers thereafter.

The computer is automatically set with a calibration number of 625 that results in an accuracy of distance recording equal to that of the instrument odometer. For those people who wish to take full advantage of the accuracy of the trip computer (1 metre in 10 km) and calibrate their particular vehicle, the following procedures are to be followed:

(a) Line up the vehicle against a known marker, e.g. centre pillar against a major highway shield.

(b) Select Trvd-Cal mode.

(c) Press the 'Hrs' button on the control panel and display will go to zero.

(d) Drive off and the display will increase in whole numbers.

(e) Stop vehicle exactly 10 km from starting point, e.g. centre pillar against a major highway shield 10 km from original shield.

(f) Press the 'Min' button. When this button is released the distance travelled since reset will display and the last number shown will enter the computer memory as the calibration number.

The calibration number should be between 615 and 650 for standard vehicles, however, special tyres, tyre pressure, vehicle loading, etc. will have a bearing on this number.

Depressing the 'Min' button any time the distance travelled/calibrate function is called up will display the calibration number. Note that by default the computer will set to a number of 625 for those who do not wish to undertake a specific calibration. Also, if the battery is disconnected and reconnected, the calibration will automatically set to 625. If required calibration number is known, select trav/calibrate mode, press 'Hrs' button, drive vehicle until required calibration number is reached then press 'Min' button. Alternatively, recalibrate as described earlier.

Whilst in the calibrate mode, i.e. after the 'Hrs' button is pressed and prior to depression of the 'Min' button, the 'Select' button is disconnected as selection of other functions during the calibration procedure would affect the calibration number and computer distance functions would be inaccurate.

Average speed

The average speed reading measures average speed since the computer was reset and only calculates this average speed whilst the ignition is on.

To enable the computer to collect enough data to calculate a sensible speed the display will show zero for the first minute after reset.

Reading is updated at one minute intervals.

Instantaneous consumption

The instantaneous fuel consumption function reads in whole numbers only the litres per 100 km and updates at half second intervals.

When the vehicle is stationary the display shows zero, however, when slowing down to a stop due to fuel being used and a small distance being travelled, some large numbers may be displayed. Also when the function is first called up some large numbers may appear due to the small time frame over which the computation is prepared.

Average consumption

The average fuel consumption calculates fuel usage since the last reset and reads in litres/100 km. It updates at approximately one minute intervals.

Fuel used

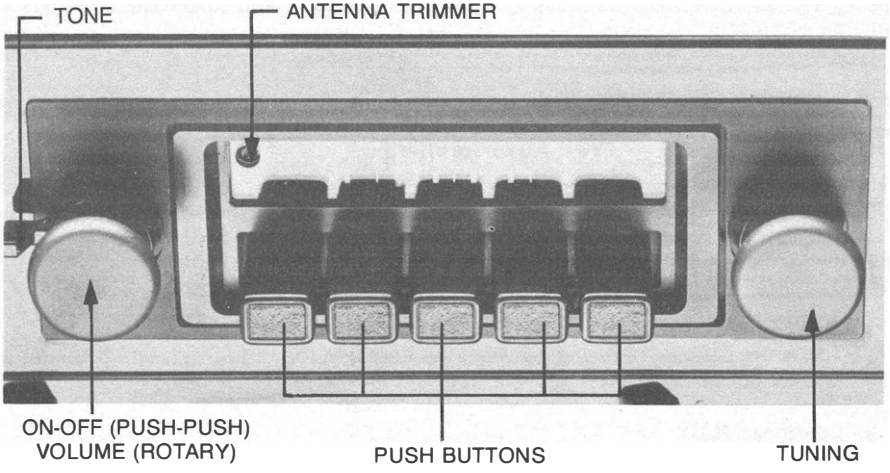
Total fuel used since reset is measured in litres to a maximum of 999 litres.

NOTE: As the trip computer draws current even with the ignition off it is a good practice to disconnect the battery if the vehicle will NOT be driven for extended periods.

When the battery is reconnected the computer will need to be Reset to ensure correct operation.

AM RADIO

This radio comes with a single speaker mounted in the instrument panel above the glove compartment.



Operating Instructions

ON/OFF switch and VOLUME control: Push the volume control to switch the receiver ON; a second push will switch the receiver OFF. Turn the control to increase or decrease the volume.

Tone control: The tone control lever is located behind the ON/OFF knob. Turn the lever up for treble, and down for base.

Manual tuning control: The receiver may be tuned at any time by means of the manual tuning control. This will not affect the ability of the push-button to recall preselected stations.

Push-buttons: The push-buttons enable you to tune the receiver to any of five preselected stations without the need to operate the manual tuning control.

Resetting push-buttons: You may alter the station to which any particular push-button is preset simply by resetting that push-button (see below). You may reset any or all of the push-buttons in this way as often as you like. Although you may reset the push-buttons in any order, it may be convenient to work along the push-buttons from left to right, pre-selecting your preferred five stations from left to right across the dial.

To reset the push-buttons to the required stations, proceed as follows:

1. Switch the receiver ON.
2. Set the VOLUME control to a higher than normal position.
3. Unlock the push-buttons (or push-button) by pulling firmly outwards.
4. Accurately tune the receiver to the required station with the manual tuning control. **NOTE:** Subsequent push-button tuning can only be as accurate as your initial setting up.
5. Lock push-button to the station by pushing in firmly.
6. Repeat steps 4 and 5 for each remaining station and push-button.

Tone control: Set the control to give the tone you find most satisfactory. When listening to speech, it may be found beneficial to increase the treble (turn control clockwise). Outside interference will be reduced by turning the control anti-clockwise.

Antenna trimmer: The antenna trimmer situated in the top left hand corner of the tuning dial must be correctly adjusted for best and clearest reception. Fully extend antenna. Tune to a noise at approximately 1,400 kHz — 140 on dial.

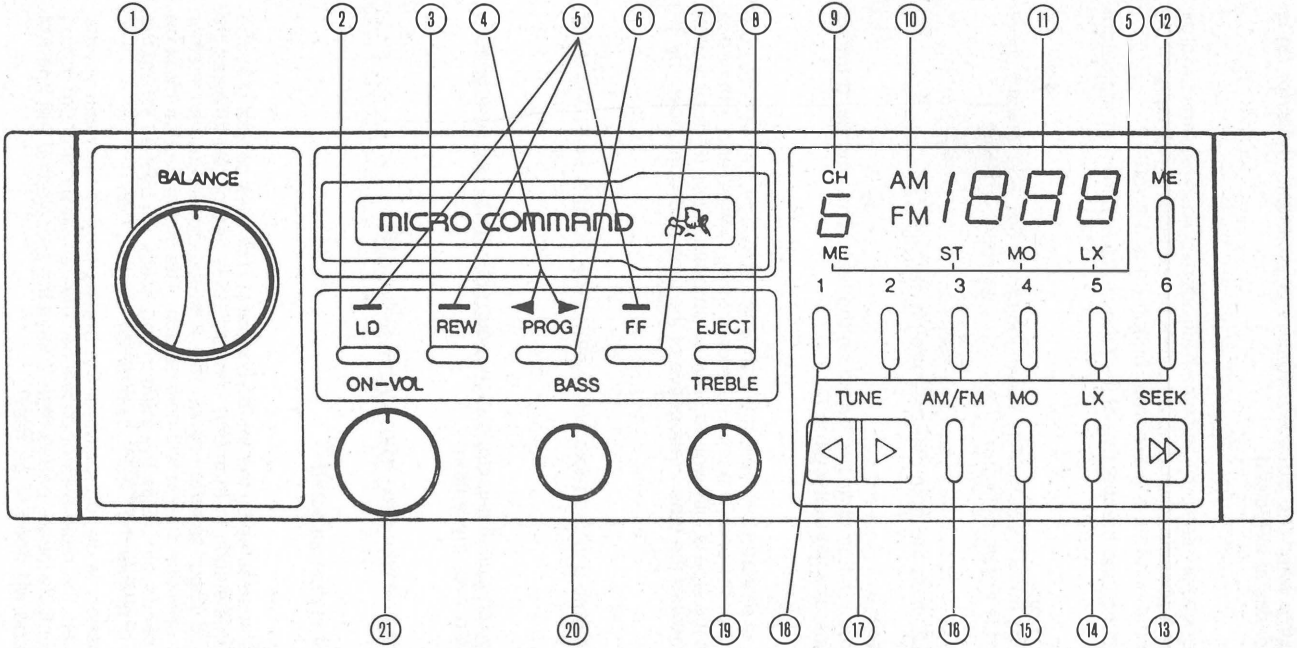
Using a small screwdriver carefully turn screw clockwise or anti-clockwise for a peak in volume or noise.

ELECTRONICALLY TUNED RADIO AND STEREO CASSETTE TAPE PLAYER — TYPE A (where fitted)

The Electronically Tuned (E.T.) radio is an AM-FM stereo signal seeking radio with digital display of channels and frequencies. The speaker system is two way (one front and one rear). Follow the operating instructions carefully to ensure correct operation of the advanced electronic equipment. (Refer to item 21 for how to switch radio on. Note: the cassette player will operate even with the power switch off.)

1. **Balance**
   To set the balance of sound between the front and rear speakers, turn this knob to left or right as required.

2. **Loudness (LD)**
   The loudness control automatically boosts low frequencies at relatively low volumes



1. Balance Control
2. Loudness Button
3. Rewind Button
4. Tape Direction Indicators
5. Control Indicators
6. Program Button
7. Fast Forward Button
8. Eject Button
9. Channel Indicator
10. AM/FM Indicators
11. Digital Frequency Readout
12. Memory Button
13. Automatic Seek Tuning Button
14. Local/Distant Button
15. Stereo/Mono Lock
16. AM/FM Selector
17. Tuning Switch
18. Station Select Buttons
19. Treble Control
20. Bass Control
21. On/Off - Volume Control

and becomes inoperative when the threshold volume is exceeded. Indicator (5) is illuminated when loudness is exercised.

3. **Rewind (REW)**
The rewind control operates on tape only and when activated rewinds the tape towards the beginning. The tape will stop rewinding and commence playing normally when the tape is fully rewound or when the program button (6) is activated.

This control will rewind the tape irrespective of the tape direction shown by indicators (4).

4. **Tape Direction Indicators**
Indicate direction of tape travel. With the RH Travel Indicator "ON" the forward spool is filling and with the LH Travel Indicator "ON" the rear spool is filling.

5. **Control Indicators**
These indicators show when the nominated control is engaged.

6. **Program Button (PROG)**
Operation of the program button changes tracks on the tape. The change in tracks is indicated by the tape direction indicators (4).

7. **Fast Forward (FF)**
The fast forward control operates on tape only and when activated, causes the tape to traverse rapidly towards the end. The tape will stop moving forward and commence playing normally when the tape is fully wound or when program button (6) is activated. This control will fast forward the tape irrespective of the tape direction shown by indicators (4).

8. **Eject**
This control ejects the tape and the radio will revert to the channel last used if the power switch is "ON".

9. **Channel Indicator**
This indicator shows which station selector button is currently in use and corresponds with the number printed over the button.

10. **AM/FM Indicators**
The indicators operate in conjunction with AM/FM switch (16).

11. **Digital Readout**
Indicates frequency of station selected.

12. **Memory Button (ME)**
When a station has been selected by the tuning control (17) or seek control (13) and it is desired to retain this station in memory, control (12) is depressed followed by depression of the desired station selection button (18). If this button already had another station in memory the previous station will now be lost. The station button must be depressed within 5 seconds, otherwise the memorising ability will be lost. Whilst the memorising facility is available the "ME" symbol (5) will be "ON".

IMPORTANT: If the battery is disconnected or the battery feed to the radio via the in-line fuse is interrupted, the radio memories will be retained for a minimum period of 7 days. For a substantially longer period than 7 days the preselected AM and FM stations may be lost and will need to be reset.

13. Seek
This control will automatically advance the tuned frequency until a strong station is encountered. This station will remain until the seek button is again depressed.

If too many stations are encountered, which could occur at night, the local/distant button (14) can be activated so that only the strongest stations are picked up.

14. Local/Distant (LX)
This control is normally on the Distant setting to obtain greatest signal strength but in some instances, it may be desirable to eliminate the weaker stations, particularly when the seek mode is being exercised at night (see 13). As it is normal to have this control in the Distant mode, indicator "LX" is on to warn when the "LOCAL" mode is engaged.

15. Stereo/Mono Lock
In some areas where FM signals tend to be weak the receiver contains circuitry to automatically shift from stereo to mono to strengthen the perceived incoming signal. As this can shift from stereo to mono and back to stereo quickly, a resultant noise can be apparent. To help overcome this noise the receiver can be locked in the mono mode via switch (15). The "MO" symbol (5) is "ON" when mono is operating.

16. AM/FM
The AM/FM switch is used to process AM or FM signals. Depending on which mode is called up the "AM" or "FM" indicator (10) will be "ON".

17. Tune
The tuning control pivots around a vertical fulcrum to give tuning in frequencies up or down, depending on whether the right hand or left hand side is depressed. In the AM mode the frequencies move in 9 kHz steps and FM in 100 kHz steps.

18. Station Selection Buttons
Each of these buttons can recall from memory either an AM or FM station depending on mode of the AM/FM switch, thus a total of 12 stations can be selected. Depending on which button is depressed the appropriate channel indicator (9) will be displayed.

19. Treble (Tone Control)
This control will either boost or cut high frequencies by rotating clockwise or anti-clockwise respectively.

20. Bass (Tone Control)
This control will either boost or cut low frequencies by rotating clockwise or anti-clockwise respectively.

21. On-Off/Volume Control
Before the radio can be turned on, the ignition key must be in either "ACC" or "ON" position. Push knob in to turn radio on. A second push will turn it off. Volume is controlled by rotating knob.

NOTE: Refer to end of this section for instructions on Antenna operation, cassette operation and care of tapes and tape player.

ELECTRONICALLY TUNED RADIO AND STEREO CASSETTE PLAYER — TYPE B (where fitted)

The Electronically Tuned (E.T.) radio is an AM-FM stereo signal seeking radio with digital display of channels and frequencies. The speaker system is four way (2 front and 2 rear). Follow the operating instructions carefully, to ensure correct operation of this advanced electronic equipment. (Refer item 21 for how to switch radio on. Note that the cassette player operates even with the power switch off.)

1. **Joystick Balance Control**
   Single balance control for 4 speakers. The position of this control graphically illustrates the predominance of sound direction e.g. upper left position would give sound mostly from left-front speaker.

2. **Loudness (LD)**
   The loudness control automatically boosts low frequencies at relatively low volumes and becomes inoperative when the threshold volume is exceeded. Indicator (5) is illuminated when loudness is exercised.

3. **Rewind (REW)**
   The rewind control operates on tape only and when activated rewinds the tape towards the beginning. The tape will stop rewinding and commence playing normally when the tape is fully rewound or when the program button (6) is activated.

   This control will rewind the tape irrespective of the tape direction shown by indicators (4).

4. **Tape Direction Indicators**
   Indicate direction of tape travel. With the RH Travel Indicator "ON" the forward spool is filling and with the LH Travel Indicator "ON" the rear spool is filling.

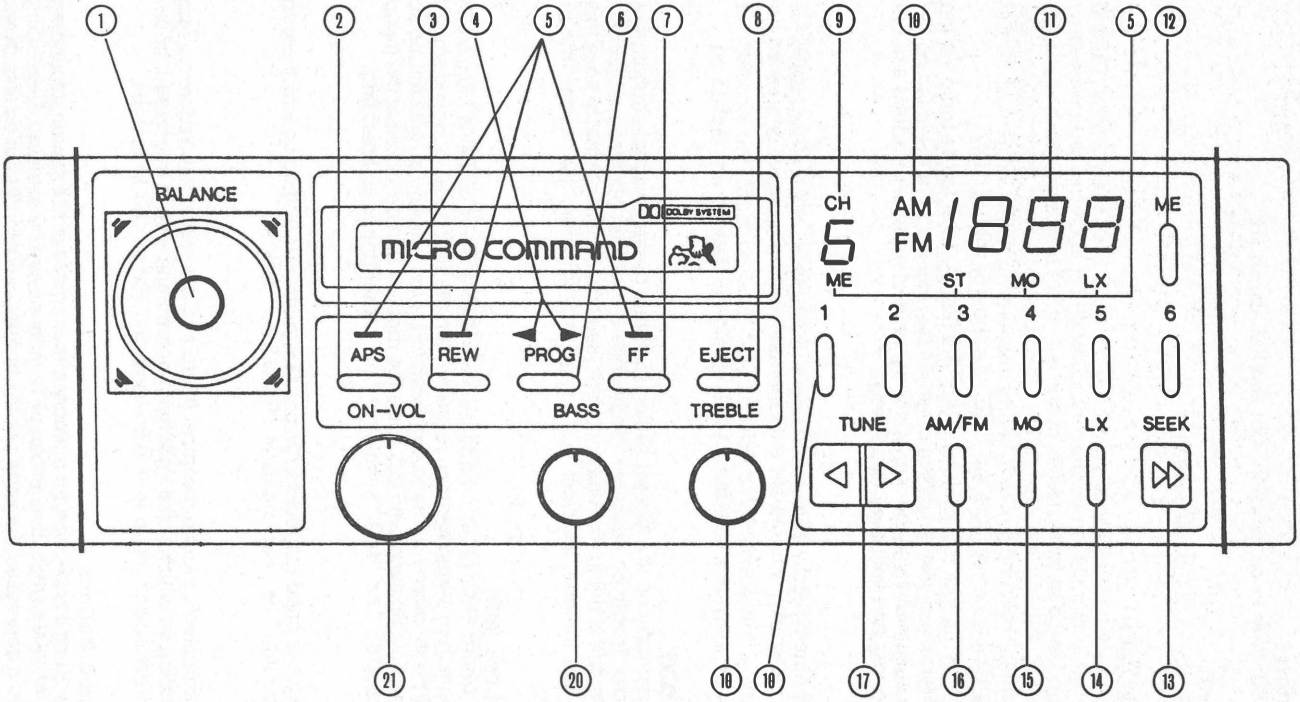
5. **Control Indicators**
   These indicators show when the nominated control is engaged.

6. **Program Button (PROG)**
   Operating the program button changes tracks on the tape. The change in tracks is indicated by the tape direction indicators (4).

7. **Fast Forward (FF)**
   The fast forward control operates on tape only and when activated, causes the tape to traverse rapidly towards the end. The tape will stop moving forward and commence playing normally when the tape is fully wound or when program button (6) is activated. This control will fast forward the tape irrespective of the tape direction shown by indicators (4).

8. **Eject**
   This control ejects the tape and the radio will revert to the channel last used if the power switch is "ON".

9. **Channel Indicator**
   This indicator shows which station selector button is currently in use and corresponds with the number printed over the button.



1. Joystick Balance Control
2. Loudness Button
3. Rewind Button
4. Tape Direction Indicators
5. Control Indicators
6. Program Button
7. Fast Forward Button
8. Eject Button
9. Channel Indicator
10. AM/FM Indicators
11. Digital Frequency Readout
12. Memory Button
13. Automatic Seek Tuning
14. Local/Distant Button
15. Stereo/Mono Lock
16. AM/FM Selector
17. Tuning Button
18. Station Select Buttons
19. Treble Control
20. Bass Control
21. Volume Control/Radio On-Off

10. AM/FM Indicators
The indicators operate in conjunction with AM/FM switch (16).

11. Digital Readout
Indicates frequency of station selected.

12. Memory Button (ME)
When a station has been selected by the tuning control (17) or seek control (13) and it is desired to retain this station in memory, control (12) is depressed followed by depression of the desired station selection button (18). If this button already had another station button in memory the previous station will now be lost. The station button must be depressed within 5 seconds, otherwise the memorising ability will be lost. Whilst the memorising facility is available the "ME" symbol (5) will be "ON".

IMPORTANT: If the battery is disconnected or the battery feed to the radio via the in-line fuse is interrupted, the radio memories will be retained for a minimum period of 7 days. For a substantially longer period than 7 days, the preselected AM and FM stations may be lost and will need to be reset.

13. Seek
This control will automatically advance the tuned frequency until a strong station is encountered. This station will remain until the seek button is again depressed.

If too many stations are encountered, which could occur at night, the local/distant button (14) can be activated so that only the strongest stations are picked up.

14. Local/Distant (LX)
This control is normally on the Distant setting to obtain greatest signal strength but in some instances, it may be desirable to eliminate the weaker stations, particularly when the seek mode is being exercised at night (see 13). As it is normal to have this control in the Distant mode, indicator "LX" is on to warn when the "Local" mode is engaged.

15. Stereo/Mono Lock (MO)
In some areas where FM signals tend to be weak the receiver contains circuitry to automatically shift from stereo to mono to strengthen the perceived incoming signal. As this can shift from stereo to mono and back to stereo quickly, a resultant noise can be apparent. To help overcome this noise the receiver can be locked in the mono mode via switch (15). The "MO" symbol is "ON" when mono is operating.

16. AM/FM
The AM/FM switch is used to process AM or FM signals. Depending on which mode is called up the "AM" or "FM' indicator (10) will be "ON".

17. Tune
The tuning control pivots around a vertical fulcrum to give tuning in frequencies up or down, depending on whether the right hand or left hand side is depressed. In the AM mode the frequencies move in 9 kHz steps and FM in 100 kHz steps.

18. Station Selection Buttons
Each of these buttons can recall from memory either an AM or FM station depending on mode of the AM/FM switch, thus a total of 12 stations can be selected. Depending on which button is depressed the appropriate channel indicator (9) will be displayed.

19. **Treble (Tone Control)**
The control will either boost or cut high frequencies by rotating clockwise or anti-clockwise respectively.

20. **Bass (Tone Control)**
This control will either boost or cut low frequencies by rotating clockwise or anti-clockwise respectively.

21. **On-Off/Volume Control**
Before the radio can be turned on, the ignition key must be in either the "ACC" or "ON" position.

Push knob in to turn the radio on. A second push will turn it off. Volume is altered by rotating knob. The power antenna will automatically retract when the radio is turned off.

CASSETTE OPERATION (Types A and B)

The cassette will operate even if the power switch is off. Insertion of the cassette is via a soft-touch motor-load mechanism to ensure correct cassette operation.

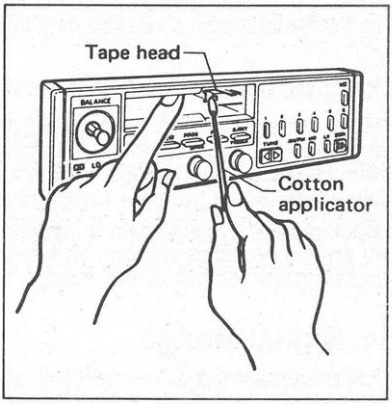
The motor load mechanism draws the cassette into the unit therefore minimal insertion by the operator is required until the motor load mechanism takes control.

NOTE: It is recommended that you use good quality C-60 tapes in your player. Tapes of longer lengths than this are specifically not recommended.

Care of Cassette Tapes and Player

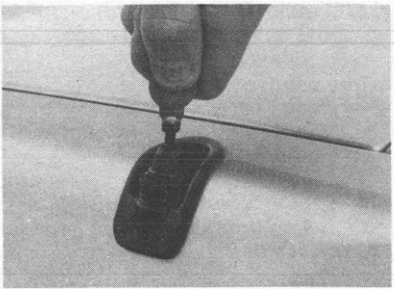
- Before inserting a cassette into the player, ensure that there is no excess slack in the tape. If necessary, insert a pencil into the reel hub and rotate it to take up the slack. A small amount of slack will not be detrimental to the tape's operation.
- On the completion of playing a tape, the cassette should be removed and stored in a suitable container.

  Do not leave cassettes on the seat or instrument panel for lengthy periods. Accummulation of dust on the cassette will ultimately cause damage to both tapes and player mechanism. Wipe any dust off cassettes before playing them.
- Do not expose cassette to direct sunlight. In hot weather it is recommended that you remove the cassette tapes from the vehicle when not in use.
- After repeated playing, residue from the tape and dust from surroundings will build up on the tape head. To assure trouble-free performance, it is recommended that once a month you clean the tape head using a cotton applicator (swab) moistened with alcohol.



ANTENNA

Standard Antenna



To extend this antenna from its fully closed position you must use the special key provided. Insert the key into the slots as shown and then use the key to withdraw the top section of the antenna. All sections can then be fully extended for maximum distance reception.

Power Antenna (where fitted)

If a power antenna is fitted, an instrument panel switch enables the antenna to be raised or lowered from the driver's position; for best reception all sections should be fully extended.

The antenna automatically lowers to the fully retracted position when the radio control or ignition key is turned to the "OFF" position.

Maintenance of Antenna

Your radio antenna will give a long and trouble free life provided it is given simple and routine attention. This is particularly so with power operated antenna where bent or grimy rods may affect its smooth and efficient operation. At least once a month the antenna should be fully extended and well cleaned with a damp cloth.

RADIO RECEPTION

Due to mobile operations, Car Radios have performance limitations that may on occasions create the impression that your radio is malfunctioning. To assist you in understanding what you can expect from your new radio, we have set out below how reception may vary from time to time under certain conditions

• AM and FM

There are two basic types of radio broadcasts. The most widely used system is AM or Amplitude Modulation in which the amplitude of the signal is varied to produce the sound. In FM broadcasts, the frequency is varied to produce the sound.

• Electrical Disturbances

Radio waves may pick up electrical disturbances during transmission. They mainly affect the wave amplitude, and thus remain a part of the AM reception. They interfere very little with the frequency variations that carry the FM signal. As a result, AM reception can be disrupted by such things as lightning, power lines and neon signs.

Because FM transmission is based on frequency variations, interference that consists of amplitude variations can be filtered out, leaving the reception relatively clear, which is the major feature of FM radio.

• Signal Range

AM broadcast waves can curve or bend around obstructions, and thus tend to follow the curvature of the earth. The upper atmosphere (ionosphere) reflects AM signals back to

earth, so stations can be heard at fairly long distances, especially after dark when the ionosphere layer rises.

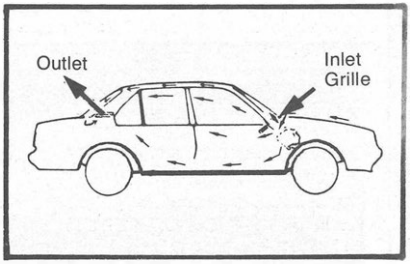
FM broadcast waves do not bend, but rather reflect off some solid objects. They usually pass through the ionosphere and are not reflected back to earth. This gives them a straight line-of-sight transmission, which limits good FM reception to about 40 km.

• Peculiarities of FM Mobile Reception

A mobile FM receiver cannot be expected to continuously provide the quality of FM reception you may have experienced on your home receiver. Contrary to popular opinion FM broadcasts are not static free, and although your new radio has a built-in electronic interference absorption circuit, some static will be evident from time to time. There are also two phenomena peculiar to very high frequency mobile reception.

1. Flutter — As FM signals reflect off solid objects, it is possible to pass through areas of "Shadow" caused by tall buildings or hilly terrain, which effectively block out the signal. As the vehicle passes in and out of shadow areas, the level of signal will vary at a rapid rate creating a flutter type of interference to the signal.
2. Distortion — Distortion may occur when the direct signal from the transmitter and a reflected signal reach the aerial at the same time and either cancel or aid each other. This results in intermittent distortion of the signal whilst moving or constant distortion when stationary, such as at traffic lights or when parked. Should this distortion occur while stationary, moving the vehicle approximately one or two metres would on most occasions correct the problem.

VENTILATION SYSTEM



Your vehicle features a flow-through ventilation system which will operate with all the windows closed.

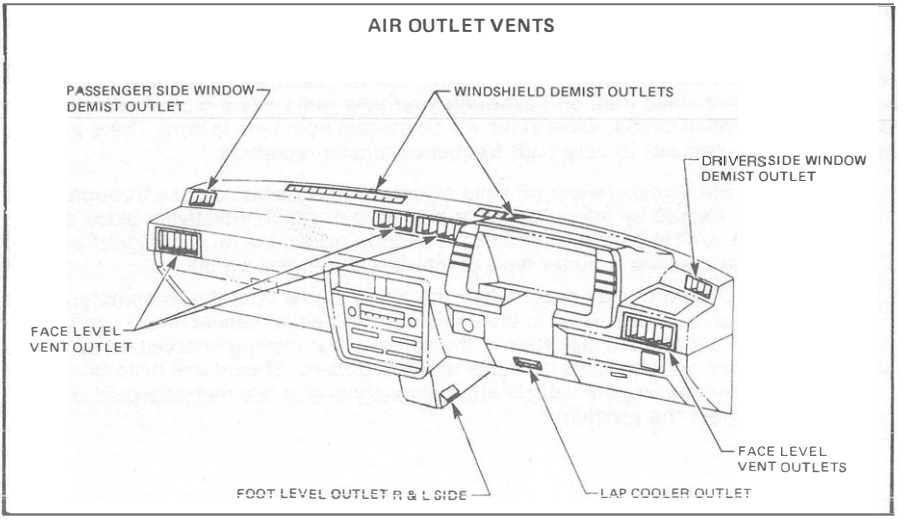
Outside air enters the vehicle through the grille in front of the windshield. It then passes through the heater or air conditioning system (if fitted) and enters the passenger compartment via the various air outlets described under 'Interior Air Outlet Vents'.

After passing through the passenger compartment the stale air is then exhausted from the vehicle through two extractor vents. In sedan models these are located on the rear body pillar and in wagon models they are located in the body pillar just behind the rear doors.

NOTE: The ventilation system will not work if the air inlet grille is allowed to become covered or clogged up with leaves, snow, etc. Keep it clean and uncluttered.

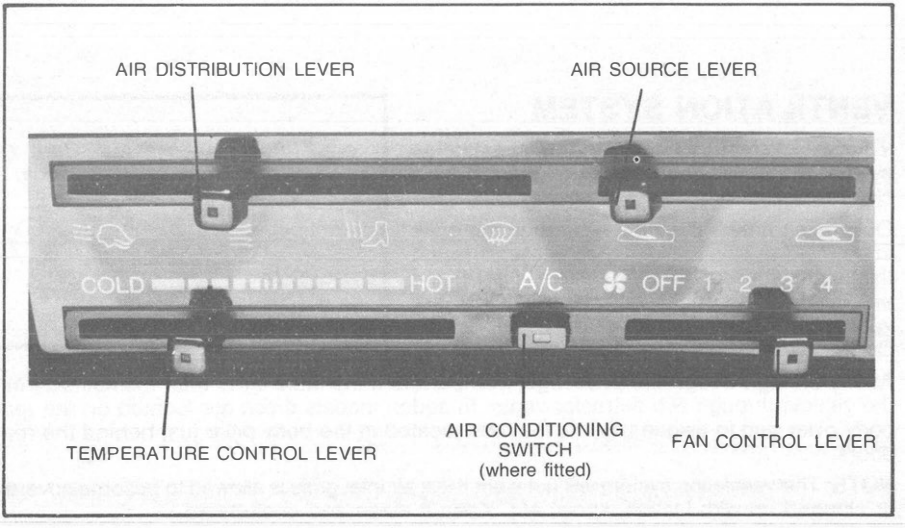
INTERIOR AIR OUTLET VENTS

The various air outlets into the passenger compartment are shown in the illustration. The selection of particular outlets and control of temperature and/or air conditioning of the air is accomplished by operation of the Ventilation & Heater controls. Operation of these controls is described in the following item.


AIR OUTLET VENTS
PASSENGER SIDE WINDOW DEMIST OUTLET
WINDSHIELD DEMIST OUTLETS
DRIVERS SIDE WINDOW DEMIST OUTLET
FACE LEVEL VENT OUTLET
FACE LEVEL VENT OUTLETS
FOOT LEVEL OUTLET R & L SIDE
LAP COOLER OUTLET

VENTILATION, HEATER, AND A/C* CONTROLS

*** Denotes — where fitted**



• Air Distribution Lever

In this position, air is directed through the face level outlet vents. With these vents it is possible to adjust the direction of the air flow.

(FACE)

This position directs air to the face level outlets as well as to the floor outlets.

(BI LEVEL) When using BI LEVEL with the temperature lever in an intermediate position and the Air Source Lever in the outside air position, warm air will be directed to the feet and cooler air to the face.

In this position the main air flow is directed to the floor with a small amount going to the windscreen and side window outlets.

(FLOOR)

In this position the air flows mainly to the windscreen and side window outlets with a small amount directed to the floor outlets.

(SCREEN)

• Air source lever

This lever has two positions:

Outside air position — Use this position for a continuous supply of air from outside the vehicle.
This position is used for most driving conditions.

Recirculated air position — In this position the air inside the vehicle is recirculated continuously whilst the interior fan is operating. This position is recommended for:

- driving in dusty conditions (with all windows wound up) or
- preventing fumes and odours entering or
- maximum cooling with the air conditioning system, particularly when the engine is idling.

If this position is used for extended periods of time you should allow outside air to enter the vehicle occasionally by moving the lever to the outside air position.

• Temperature Control Lever

This lever is used to control the temperature of the air being discharged from the various air outlets.

• Fan Control Lever

The fan control lever has five positions: OFF, 1, 2, 3 & 4, for controlling fan speed thereby controlling the rate at which air flows from the various outlets.

• Air conditioning switch (where fitted)

To operate the air conditioner push the A/C button and move the fan control lever to position 1, 2, 3 or 4.

NOTE: The air conditioner will not operate with the fan control lever in 'OFF' position.

A small light in the A/C switch will glow to indicate the air conditioner is switched ON. To switch the air conditioner off, press the A/C button to release it.

Air Conditioner — Operating Notes:

- If your vehicle interior is extremely hot, first drive the vehicle for two or three minutes with all windows open to expel heated interior air. Close the windows as soon as the hot air has been forced out of the vehicle.
- Keep windows closed while the air conditioner is in operation.
- If your vehicle is stopped for long periods in hot weather with the engine running and air conditioner operating move the air source lever to 'RECIRC' for maximum cooling. Also, on vehicles fitted with **automatic transmission,** select NEUTRAL or PARK. This will increase engine speed which in turn aids engine cooling and air conditioner performance.
- Under normal conditions it is recommended that the recirculated air setting be avoided if occupants are smoking as residues from the tobacco smoke adhere to the evaporator and air ducts and will produce stale smelling air during subsequent operation.
- It is recommended that the following procedure be carried out regularly during those periods of the year (e.g. winter) when the air conditioning mode may not normally be utilised:

  Once every two weeks, with the engine running, switch the air conditioner on and run the unit for at least 5-10 minutes.

  This procedure recirculates the oil within the compressor and lubricates compressor shaft seals. This will help to prevent the drying out of the seals with subsequent operating failure of the system.
- CONDENSER CLEANLINESS: Ensure that the condenser and radiator passages are kept clear of dead insects etc. Cleaning with an air hose is preferable, however, a soft bristle brush may be used taking care not to damage the cooling fins.

SECTION 2 STARTING, DRIVING, LOADING & TRAILER TOWING

EXHAUST GAS WARNING

(Carbon Monoxide Poisoning)

Exhaust gases contain carbon monoxide, a dangerous gas, which can cause unconsciousness and even death to both humans and animals.

You could inhale the gases if the exhaust system on your vehicle is faulty.

To protect against exhaust gas entry into the interior of the vehicle we recommend that the exhaust system and body be thoroughly inspected:

— each time the vehicle is serviced;
— whenever a change is noticed in the sound of the exhaust system or
— whenever the exhaust system, underbody or rear of the vehicle is damaged.

Take the vehicle to your GMH dealer if you think your vehicle needs inspecting for any of the above reasons.

DO NOT SIT IN A PARKED VEHICLE FOR ANY EXTENDED PERIOD OF TIME WITH THE ENGINE RUNNING AND DON'T LEAVE THE CHILDREN OR YOUR PETS IN THE VEHICLE EITHER.

DO NOT RUN THE ENGINE IN AN ENCLOSED AREA SUCH AS THE GARAGE, ANY LONGER THAN IS NEEDED TO MOVE THE VEHICLE.

Driving with the luggage compartment lid or wagon tailgate open is not recommended. If you must travel with the luggage compartment lid or wagon tailgate open, close all windows, fully open the ventilation system, turn ventilation fan control to maximum setting and do not exceed 50 km/h unless necessary.

NEW CAR 'RUNNING-IN' PERIOD

There is no need to follow a formal running-in schedule. However, by observing a few simple precautions during the first few hundred kilometres of driving you will add greatly to your vehicle's future performance and economy.

For the first 1500 kilometres it is recommended that you:

- Avoid driving at any one speed — either slow or fast — for any length of time. (The most favourable engine speed during running-in is between 1500 and 4000 rpm in all gears.)
- Avoid operating at higher speeds until the engine has completely warmed up.
- Avoid full throttle starts.
- Don't allow the engine to labour in any gear.
- Avoid extended idling periods.
- Avoid heavy braking, except in an emergency. This will allow the brake shoes/pads to 'bed in' properly.

SAFETY CHECKLIST

Following these simple steps before driving your new vehicle will help make your motoring safer:

Before Entering The Car

1. Check that windows, mirrors and lights are clean.
2. Look at the tyres. If any tyre appears under inflated, check it with a tyre gauge.
3. If you intend to reverse, check that the area behind you is clear.

Before Driving Off

1. Be sure that all doors are secured.
2. Position your seat for comfortable driving.
3. Adjust all rear vision mirrors.
4. FASTEN SEAT BELTS.
5. Check that the warning indicators light up when you turn the key to start the engine. (See below for correct Starting Procedure.)
6. Check all gauges (including the fuel gauge).

STARTING THE 1.8 L FUEL INJECTED ENGINE

1. Apply the parking brake firmly and release only after you have started the engine and are ready to drive off.
2. **Manual Transaxle**
   Depress the clutch pedal and shift the gear lever to Neutral position.

   Automatic Transaxle (where fitted)
   Move the shift lever to 'P' (Park) or 'N' (Neutral) position. The engine will not start if it is in any other position.
3. Start the engine as outlined below.

   For cold or hot starting the procedure is the same. Simply turn the key to START position and release when the engine starts. You do **not** have to depress the accelerator pedal prior to or during cranking.

   NOTICE: You should not subject the engine to high load conditions such as full throttle acceleration or high speeds until it has completely warmed up.

STARTING THE 1.6 L ENGINE

1. Apply the parking brake firmly and release only after you have started up and are ready to drive off.
2. **Manual Transaxle**
   Depress the clutch pedal and shift the gear lever to Neutral position.

   Automatic Transaxle (where fitted)
   Move the shift lever to 'P' (Park) or 'N' (Neutral) position. The engine will not start if it is in any other position.
3. Start the engine as outlined below.

Cold Engine

- Before starting a cold engine, press the accelerator pedal slowly to the floor once and then completely release it. This action sets the automatic choke system for starting.
- Turn the ignition key to the START position until the engine is started. If the engine fails to start within a few seconds, turn the key to the OFF position then depress and release the accelerator pedal before turning the ignition key to the START position again. Release the key when the engine is started. If the vehicle has been standing for several days, it may be necessary to repeat this procedure a few times until the engine starts.
- After the engine has started, allow it to run at fast idle for at least 10 seconds before engaging gears. Do not KICK DOWN, i.e. do not depress the accelerator pedal in an attempt to lower the engine idle speed. While the engine is running, the automatic choke gradually moves to the off position as the engine reaches normal operating temperature.

  In temperatures below 0°C, let the engine run at fast idle in NEUTRAL for about one minute before commencing to drive away. On vehicles fitted with automatic transmission, place the shift lever into Drive and wait a few seconds for the engine to steady itself before releasing the brake to drive away.

NOTICE: You should not subject the engine to high load conditions such as full throttle acceleration or high speeds until it has completely warmed up.

Warm Engine

When your engine is warm, the choke system operates only briefly — if at all. To start — press the accelerator halfway to the floor and hold it in this position, then turn the key to START.

Idle the engine in Neutral for a short period before driving off.

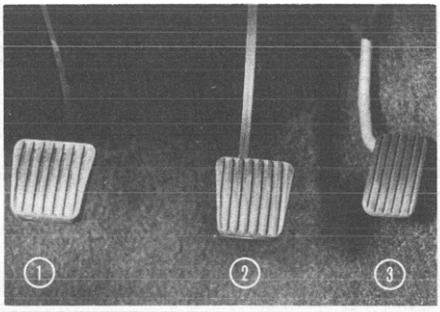
Flooded Engine

Pumping the accelerator pedal and/or cranking the engine for a lengthy period without it starting could result in there being too much fuel in the engine.

If this occurs, press the accelerator down to the floor and hold it there while holding the key in the START position. When the engine starts, allow the accelerator pedal to come up slowly.

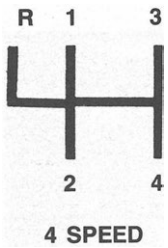
FLOOR CONTROLS

1. **CLUTCH PEDAL** (Manual Transmission)
   This pedal is used to engage and disengage the clutch which enables you to select and change gears.
2. **BRAKE PEDAL**
   This pedal is used to control the vehicle's speed by operating the brake system.
3. **ACCELERATOR PEDAL**
   This pedal is used to regulate engine power and vehicle speed.

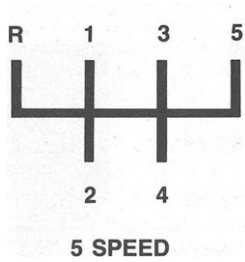


MANUAL TRANSAXLE

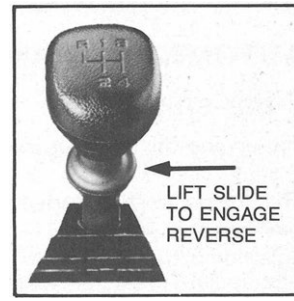
The manual transaxle fitted to your vehicle will be either a 4 Speed or 5 Speed unit. The gear selection pattern which is indicated on the gear lever knob is shown in the illustration.



4 SPEED



5 SPEED



Selecting Reverse Gear — The slide on the gear lever just below the knob must be raised to allow the lever to pass into the R position.

Selecting Fifth Gear — The gear lever must be shifted sideways (towards the driver) against spring pressure in order to pass into Fifth gear.

Recommended Shift Speeds

To help ensure minimum exhaust emissions and fuel consumption the following are the recommended speeds at which gear changes should be made.

Gear Change	4 Speed	5 Speed
1 — 2	20 km/h	20 km/h
2 — 3	35 km/h	30 km/h
3 — 4	55 km/h	45 km/h
4 — 5	—	60 km/h

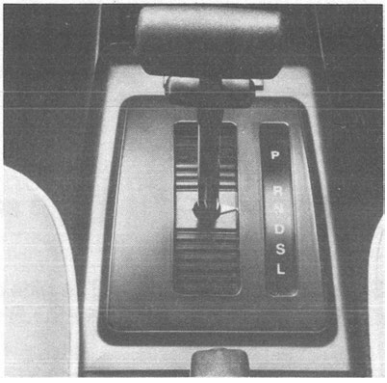
Manual Transaxle — Operating Notes

- When shifting from one gear to another, be sure to depress the clutch pedal fully to avoid clashing and possibly chipping the transmission gears.
- Never attempt to engage reverse gear until the vehicle has completely stopped. A slight pause between depressing the clutch pedal and moving into Reverse gear is desirable to allow all the rotating components to stop and avoid gear crashing.
- Whenever Reverse is selected with the ignition on, the back-up lights will operate.
- Do not drive with your foot resting on the clutch pedal as damage to the clutch may result.
- When stopped on an incline do not hold the vehicle by slipping the clutch. Use the foot brake or parking brake.

- When climbing steep grades, change down to a lower gear before the engine starts to labour. To maintain safe speeds on a steep downgrade and to reduce brake wear and overheating, shift into a lower gear before starting the descent.
- Do not overspeed the engine when shifting down to the next lowest gear (maximum allowable engine speed — 6500 rpm).

AUTOMATIC TRANSAXLE

T-bar shift lever



The engine will not start unless the selector is in either P or N.

After the engine has started select your gear — normally R or D.

Selection of gears from L to P or P to L and any intermediate positions can be made by raising the release bar below the shift lever handle.

Shifting the lever from L to S to D to N does not require use of the release bar but the release bar must be raised to select R or P.

Selecting positions from P requires raising the release to move out of PARK. Releasing the release bar before R will still allow selection through R to N to D. The release bar must be raised again to shift into the positions S or L.

What the positions are for:

P — Parking. Always use the parking brake as well. Your engine may be started in this position.

WARNING: Never shift transmission to Park position unless the car is completely stopped.

R — Reverse. Your car must be stationary before you select this position. Provided the ignition is on, the Back-Up Lights will operate whenever Reverse is selected.

N — Neutral. Your engine may be started in this position. Use Neutral to re-start a stalled engine while the car is still moving. Do not coast in Neutral, whether or not the engine is running. (Neutral is also used when towing the car. See "Towing" in "In Case of Emergency" Section 3 of this Manual.)

D — Drive. This is the position for normal driving and its use allows the transmission to choose the appropriate gear for load and driving conditions. In this position the vehicle begins accelerating in low gear and shifts automatically into 2nd and 3rd gears.

As the vehicle speed decreases, or engine load increases, the transmission will automatically downshift to 2nd or low gear depending on vehicle speed and engine load.

"S" — Second. This position is used when it is desirable to prevent the transmission changing into 3rd gear for going uphill, or for "engine braking" when going downhill. You can shift from "D" to "S" (and vice versa) under most driving conditions.

Do not use second gear ("S") for extended periods at speeds greater than 110 km/h.

''L'' — Low. This position is used when it is desirable to prevent the transmission changing into 2nd gear for going up steep hills; or, when maximum ''engine braking'' is needed for going down steep hills; or, when needed to pull through heavy sand or mud.

Do not use low gear (''L'') at speeds greater than 65 km/h.

Downshifting in Drive (''D'')

When you require extra power for overtaking or climbing steep grades, you can force the transmission to change to a lower gear (downshift) by pressing the accelerator pedal to the floor.

Automatic Driving Don'ts

- Don't rev the engine with the brakes on in either L, S, D or R. This will overheat the transmission.
- Don't rev the engine to hold the car on a slope. Use the brakes.
- Don't move into either R or P unless the vehicle has stopped.
- Don't ever coast the vehicle in N — this lessens your control and the engine braking power.

BRAKE SYSTEM

Your Camira is fitted with a vacuum power-assisted brake system utilizing disc-type front brakes and drum type rear brakes

To ensure the safety of yourself and of others it is important that your vehicle's brake system receives regular maintenance as detailed in the Maintenance Schedule in Section 6B of this handbook.

Split Circuit Brake System

The braking system on your Camira is actually two separate systems; one operating the right hand front and left hand rear wheels and the other operating the left hand front and right hand rear wheels.

Hydraulic pressure is provided from a tandem design master cylinder which isolates the two systems. This means there are two completely separate hydraulic circuits each supplying pressure to half of the braking system. In the event of a failure in one circuit, the other circuit will be fully operational to stop the vehicle, although with increased pedal effort. In association with the extra pedal effort the pedal would also travel further towards the floor.

Brake Failure Warning Light

The brake system warning light is covered in the ''Instrument Panel'' section, Section 1E.

Power Brakes

- If power assist is lost because of a stalled engine or other reasons, the brakes can normally still be applied with power assist at least two times using reserve power.
- The system is designed to bring the car to a full stop on reserve power if the brake pedal is applied once and held down. However, the reserve power is partly used up each time the brake pedal is applied and released. Apply smooth and even pressure

to the pedal. Do not pump the brakes when brake power assist has been lost, except when needed to maintain steering control.

- Without power assist, the car can still be stopped by pushing much harder on the brake pedal. However, the stopping distance may be longer, even though the brakes themselves remain fully operational.

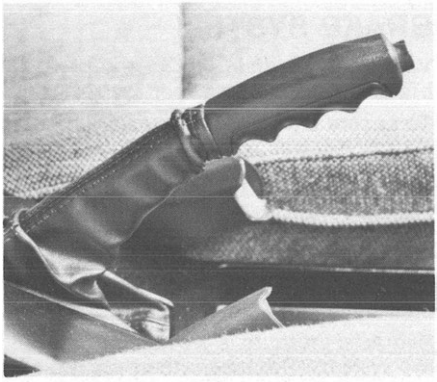
Self Adjusting Brakes

- The brakes on this vehicle are self-adjusting. They have been designed so that periodic brake adjustment is not required.
- The drum brakes adjust themselves each time the brake is applied.
- The disc brakes adjust themselves each time the brakes are used.
- If the brake pedal suddenly goes down further than normal, you should immediately see a GMH dealer for investigation of the problem.
- Also see your dealer if the parking brake is out of adjustment.

Parking Brake

The parking brake lever is mounted on the floor between the passenger's and the driver's seats.

- To Apply. Pull the lever straight up using the grip at the end of the lever. Do not press the release button.
- To Release. Pull the parking brake lever upwards while simultaneously pressing in release button at the end of the lever with the thumb. After the ratchet system disengages, retain pressure on the button while lowering the lever.
- To help remind you, the park brake warning light is designed to stay on if the parking brake is not fully released and the ignition key is on.
- Never drive the car with the parking brake on as this may overheat the rear brakes, reducing their effectiveness and causing excessive wear or damage.



NOTICE: "Riding the brake" by resting your foot on the brake pedal when you do not intend to brake can cause overheated brakes. This can wear out the brake linings and pads faster and damage the brakes and waste fuel.

CAUTION: Driving through water deep enough to wet brake components may reduce braking effectiveness. As a result, the car will not slow down at the usual rate, and it may pull to the right or left. After checking to the rear for other vehicles, apply the brakes lightly to check whether this has happened. To dry them quickly, lightly apply the brakes. At the same time keep a safe forward speed, with plenty of clear space ahead, to the rear, and to the sides. Do this until the brakes return to normal. Always do this after driving through water to help reduce the possibility of personal injury.

HOW TO IMPROVE FUEL ECONOMY

The following information is to help you obtain the best fuel economy from your vehicle.

Vehicle Maintenance
Maintain your car in peak mechanical condition by having it serviced regularly in accordance with the GMH Maintenance Schedules. This will ensure items such as engine timing, spark plugs, air cleaner, engine idle speed, etc. are maintained for best fuel economy.

Tyre Pressures
Keep the tyres at the recommended pressures as shown on the tyre placard. Under inflated tyres create extra rolling resistance which contributes to increased fuel consumption.

Wheel Alignment
Maintain correct front wheel alignment. Incorrect alignment makes the front wheels drag and increases fuel consumption.

Warm Ups and Excessive Idling
- Avoid long warm ups. They are unnecessary and waste fuel. An engine reaches its efficient operating temperature most effectively by driving on the road.
- You should also avoid excessive engine idling. If you have to wait for more than a couple of minutes turn off the engine to conserve fuel.

Accelerating, Driving and Braking
- Accelerate gently — avoid rapid starts, sudden bursts of speed and full throttle accelerations — they're certain fuel wasters.
- Wherever possible, gear changes should be made at the recommended speeds.
- Drive the vehicle at steady speeds where possible (after run-in). It is desirable to achieve top gear operation, as soon as possible, but under no circumstances should you force the engine to labour in top gear.
- Slow down gradually with minimum use of the brakes. Sudden stops waste energy in the form of heat generated under braking. Energy in the form of fuel is needed to accelerate again.
- Avoid frequent short trips.

Excessive Speed
Drive at moderate speeds. Driving at 80 km/h instead of 110 km/h will use less fuel. Note that constant low speed driving (less than 60 km/h) will not give good fuel economy either.

Vehicle Loading & Aerodynamics
- Avoid carrying excess weight as the heavier the load the more fuel you will use.
- When loading your car's roof rack try to keep the load as low as possible thereby minimising wind drag.
- Overloading the rear suspension upsets the aerodynamics of your vehicle by raising the front of the car. The resultant drag increase contributes to increased fuel consumption.

Air Conditioner Operation
If fitted with air conditioning, use only when necessary. However, it must be remembered that the air conditioner needs to be run at least once a fortnight to help prevent drying out the compressor seals. Refer to A/C operating notes in Section 1E.

LOADING YOUR VEHICLE

Overloading is a safety hazard and could also shorten the life of your vehicle or its parts.

The maximum load (as defined by Australian Design Rules) your vehicle is designed to carry safely is as follows:

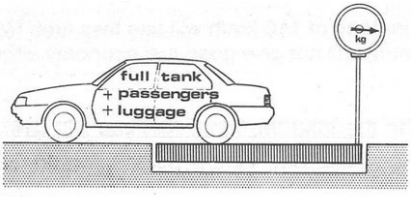
	Sedan	Wagon
One occupant (mass 68 kg) in each seating position (5)	340 kg	340 kg
Plus luggage carried in load compartment	68 kg	91 kg
Maximum Load — Total	408 kg	431 kg

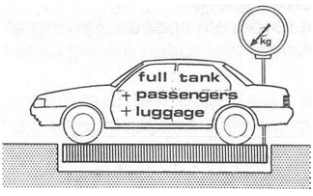
NOTICE: Your Camira was designed and developed as a passenger vehicle and not as a commercial goods carrying vehicle, therefore, continuous operation at maximum load is not recommended.

If you load your vehicle in any other configuration to that described in the above table then you should ensure that the **Maximum Rear Axle Load** and **Maximum Loaded Vehicle Mass** specified for your model are not exceeded. (Refer to table below.) The checking of both these loading limits will require weighing the vehicle on a weighbridge or on scales designed for this purpose.

When loading your vehicle always try to position passengers and/or cargo so that the load is distributed evenly about the longitudinal centreline of the vehicle.

Maximum Rear Axle Load (kg)			Maximum Loaded Vehicle Mass (kg)		
Sedan	SL	740	Sedan	SL	1509
	SL/X			SL/X	1522
	SL/E			SL/E	1529
Wagon	SL	810	Wagon	SL	1578
	SL/X			SL/X	1586
	SL/E			SL/E	1586





Towbar Loads

The load imposed on the towbar ball must be taken into account when determining the total loading on the vehicle and rear axle unless a load equalising hitch is used which fully compensates for towbar load by restoring the towbar tongue height to the unhitched position.

Roof Rack Loads

No increase in maximum loaded vehicle mass is allowable where a roof rack is fitted. It must be understood that roof rack loads alter the handling characteristics of a vehicle due to a change in the centre of gravity. When carrying loads on the roof rack avoid abrupt swerving or sharp steering manoeuvres. The load should be evenly distributed. A load of no more than 50 kg is suggested as a reasonable limit.

Booster Springs and Superlift Shock Absorbers

The use of booster springs or superlift shock absorbers DOES NOT increase the load capacity of the vehicle. The recommended loading limits for your vehicle must NOT be exceeded if overloading of axle components and the consequent shortening of service life is to be avoided.

Superlift shock absorbers do allow adjustment of the vehicle's height, so that improved ride and handling and better ground clearance in rough terrain may be obtained when running heavily laden.

CAUTION: Do not drive the car with Superlift shock absorbers inflated when the car is unladen as vehicle handling is affected. (The car should be at normal trim level.)

Tyre Load Rating and Vehicle Loading

It must be clearly understood that the maximum load rating shown on the tyre placard in the glove compartment is not an actual load capacity that can be used for each wheel. While the tyre manufacturers rate the tyre for this load application at the maximum pressure shown on the placard, the vehicle manufacturer's body and suspension components, ride, and handling characteristics must be taken into account. Therefore, the maximum rear axle loading and the maximum loaded vehicle mass should not be exceeded.

"ADD ON" EQUIPMENT — FRONT OF VEHICLE

Owners intending to fit additional equipment to the front of the vehicle, such as 'bull bars' etc. should first check with their GMH dealer.

Depending on the mass of the equipment, it may be necessary to fit heavier duty springs and struts to help avoid potential damage to the front underside of the vehicle when driving in rough road conditions.

NOTE: Vehicles that have been fitted with the optional Outback Pack will have these heavy duty front suspension components fitted as part of the package.

CARAVAN OR TRAILER TOWING

Your Camira is designed primarily as a passenger vehicle therefore handling, braking durability and economy will be affected by towing a caravan or trailer. Before attempting any towing, ensure that the correct equipment is fitted to your vehicle. Your GMH Dealer will help supply and install towing equipment to suit your requirements.

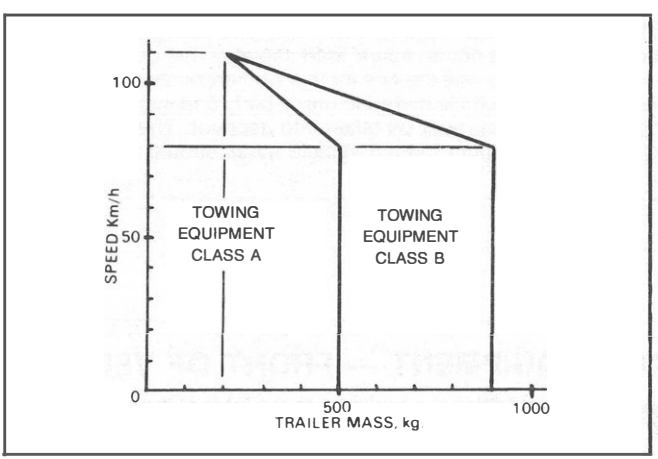
Never exceed the maximum loaded trailer mass or the maximum towbar ball load specified for the particular class of towing equipment fitted to your vehicle.

Maximum Loaded Trailer Mass

The total loaded trailer mass (kg) must NOT exceed the maximum mass specified for the class of towing equipment fitted to your vehicle.

Towing Equipment	Maximum Trailer Mass
Class A	500 kg
Class B	907 kg

The following graph shows how the maximum trailer mass should be reduced for travel at higher speeds.



NOTE: The maximum trailer mass shown in the graph applies to moderate uphill gradients (up to 12%) and altitudes up to 1500 metres. When towing up steeper inclines or at greater altitudes, the maximum trailer mass that can be towed in these conditions must be reduced.

Towing Class — Equipment Specifications

This table specifies the combinations of towing equipment packages essential for each towing class.

CLASS	ESSENTIAL TOWING EQUIPMENT
A	GMP&A Trailer Wiring Harness Package. GMP&A Tow Bar Package (Sedan or Wagon) as required.
B	GMP&A Trailer Wiring Harness Package. GMP&A Tow Bar Package (Sedan or Wagon) as required. Load Equalizer Hitch Trailer Brakes — for optimum control, use driver controlled independently operated brakes. Over-run type brakes may not be suitable.

NOTE: GMH towing equipment is recommended where it is available. Where it is not available no recommendation is made as to the make of equipment which should be used. Neither General Motors-Holden's Limited nor General Motors-Holden's Sales Pty. Ltd. will accept liability for defects occurring in towing equipment not marketed by General Motors-Holden's Limited or for defects in the vehicle arising from the use of such equipment.

Towbar Ball Load

The towbar ball load is measured as the vertical force required to support the trailer coupling at the towbar ball height before connecting the trailer to the car.

The recommended towbar ball load is 10% of the loaded trailer mass up to the maximum ball loads as specified in the following table:

Towing Equipment Class	Maximum Permissible Towbar Ball Load
A B	50 kg 90 kg

NOTE: For towball loads in excess of 50 kg or for trailer mass above 500 kg, a load equalizer hitch is required.

Maximum Permissible Rear Axle Load

Never exceed the Maximum Rear Axle Load specified for your vehicle. These rear axle load limits are given earlier in this section under 'Loading Your Vehicle'.

The load imposed on the towbar ball must be included in the maximum rear axle loading unless a load equalising hitch is used which fully compensates for towbar load by restoring the towbar tongue height to the unhitched position.

Tyre Pressure

Ensure that tyres are inflated to the maximum recommended pressure (refer Tyre Placard located in glove box).

Safety Chain

The safety chain is designed to prevent accidents should the connection between car and trailer fail while towing. Be sure the chain is slack enough to permit turning corners and, if possible, tight enough to prevent the towing coupling from dropping on the ground.

Trailer Brakes and Lighting

Ensure that trailer conforms to state regulations regarding brakes and lighting.

A special wiring harness is available from your GMH Dealer or accessories stockist. This is the only system recommended by GMH and use of any other may affect your warranty.

If the trailer uses electrical current from the tow vehicle other than for lights, stop lights and turn signals, specify heavy duty alternator and heavy duty battery.

Running-In Period

It is best to drive your new Camira for at least 1500 kilometres before towing a load. The same applies if you have a new or reconditioned engine or transaxle.

Maintenance — Automatic Transaxle

More frequent vehicle maintenance is required when using your vehicle to pull a trailer. Where an automatic transmission is fitted the transmission fluid will need to be changed every 12 months or 20,000 kilometres.

CAUTIONS:

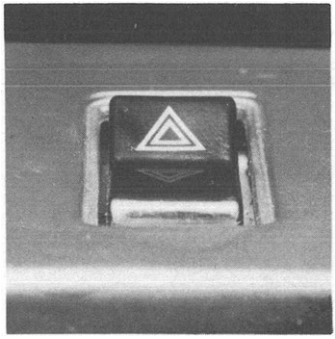
1. **A frame mounted equalizing hitch with a sway control of sufficient capacity is required for trailers over 500 kg loaded mass.**
2. **Trailer brakes are required on trailers over 500 kg loaded mass except where State Laws may specify a lower limit. Some States specify that the maximum load to be towed must not exceed the vehicle mass.**
3. **It is permissible to tap into the brake system with a unit using not more than 0.21 cc of fluid displacement during the operation of the brakes.**
4. **The brakes on the trailer or caravan must be designed to cope with the braking requirements of that trailer or caravan under all towing conditions without adversely affecting the brakes on the towing vehicle.**
5. **WHENEVER A TOWBAR IS REMOVED, BE CERTAIN TO HAVE ANY MOUNTING HOLES IN THE UNDERBODY PROPERLY SEALED TO PREVENT THE POSSIBLE ENTRY OF EXHAUST FUMES, DUST AND WATER.**

Safe Towing Tips

- Your vehicle will handle differently with a load behind. It's a good idea to make a couple of short distance trips with the caravan or trailer before you set off on the big one.
- You should have an extended-arm mirror on **both** sides of the vehicle.
- Headlights may need re-aiming after the loaded caravan has been hitched up, particularly if a load equalizing hitch is not used.
- Use a lower gear, rather than your brakes, when going down steep hills.
- If your caravan or trailer runs off the road behind you, allow the left wheels of your car to run off as well. When it is safe to do so, carefully steer back on to the road. A sudden attempt to steer back could make you swerve dangerously.

SECTION 3 IN CASE OF EMERGENCY

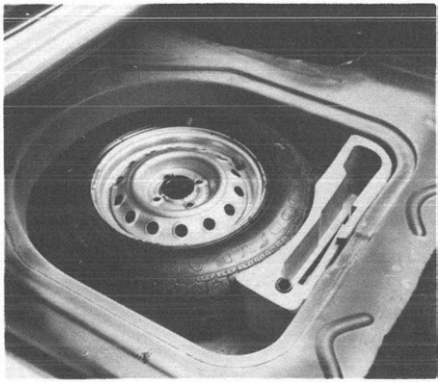
HAZARD WARNING FLASHER



Use the hazard warning flasher to warn other drivers any time your car becomes a traffic hazard, day or night. Avoid stopping on the roadway if possible.

- Turn on the hazard warning flasher by pushing the switch located on the top face of the steering column cover. This makes all four turn signal lights flash continuously. The dash mounted turn signal indicator lights will also flash.
- The flasher will work with the ignition either off or on.
- USE OF THE HAZARD WARNING SYSTEM WHILE THE VEHICLE IS MOVING IS PROHIBITED BY LAW IN SOME STATES.

Spare wheel storage



The spare wheel, jacking equipment and wheel nut wrench are stored in the luggage compartment, under the floor cover.

The spare wheel is secured by a wing nut. The jack and tools are in a moulded compartment located at the rear of the spare wheel.

WHEEL CHANGING

CAUTION: To help Avoid Personal Injury.

- **Carefully follow jacking instructions.**
- **Use jack only for lifting this vehicle when changing wheels.**
- **Never get beneath the vehicle when it is supported by the jack only.**
- **Do not start or run the engine while the vehicle is supported by the jack only.**
- **All passengers should be out of the vehicle when it is being jacked.**

Move the vehicle off the road where possible.

1. Park on a level surface and set the parking brake. Put the manual transaxle in reverse (Automatic transaxle in P).

2. Switch on hazard flasher.

3. Chock the front and rear of the wheel diagonally opposite the flat tyre to prevent wheel rotation.

4. Place jack below the jack location nearest the wheel to be changed. (There are four jack locations, two either side at front and rear of vehicle.)

   Raise the jack to engage the "U" shaped lifting foot of the jack over the underbody flange at the jack location.

   Immediately prior to lifting the vehicle, ensure that base of jack is located on the ground directly below the jack location so that "wide" area of the base is in contact with the ground. Refer illustration opposite.

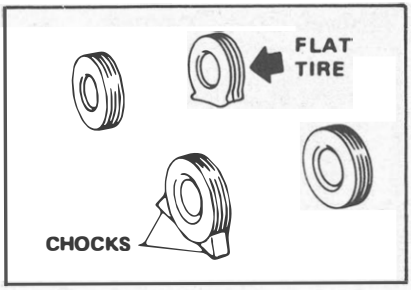
CAUTION: Failure to position the jack as described in step 4 could result in serious personal injury or vehicle damage caused by the vehicle slipping off the jack.

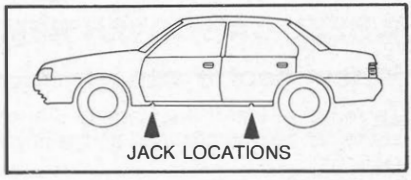
5. Remove the wheel covers or centre trims then using the wheel wrench provided, slacken the wheel bolts one or two turns each. DO NOT LOOSEN ANY FURTHER TILL WHEEL IS CLEAR OF GROUND.

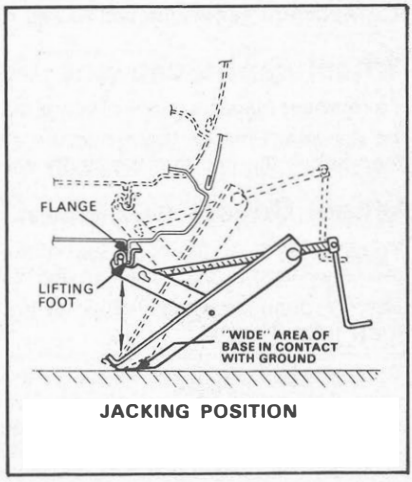
6. Raise vehicle until wheel is clear of ground, remove bolts and change wheels.

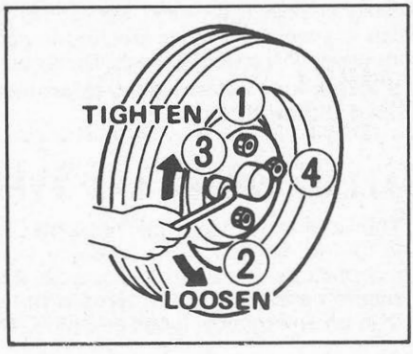
7. Partially tighten the wheel bolts alternately and evenly in the sequence shown opposite.

8. Lower the vehicle until the wheel rests firmly on the ground. Fully tighten wheel bolts with wrench, install wheel covers or centre trims (where fitted) and remove chocks and jack.









Wheel Bolt Torque

CAUTION: As soon as possible after changing a wheel, you should have the wheel bolts tightened with a torque wrench to the specifications shown in 'Specifications' Section 7 of this Manual.

Wheel bolts should be tightened evenly to the correct torque in the numerical sequence shown.

Improperly tightened wheel bolts could eventually allow the wheel to come off while the car is moving, possibly causing loss of control, and/or personal injury or damage.

WHEEL CAP/COVER REMOVAL & REPLACEMENT

Wheel centre cap (SL models)

To remove: Insert the blade of the wheel nut wrench between the wheel and the cap at the cap recess provided and gently lever off by moving the wrench towards the wheel face.

To replace: Position the centre cap in the wheel cavity and press firmly into position.

Wheel centre cap (SL/E models)

To remove: Place the blade of wheel nut wrench in the slot in the wheel and gently prise off.

To replace: Position the cap in the cavity with base opposite the slot edge in position then knock the cap into the cavity with the palm of the hand.

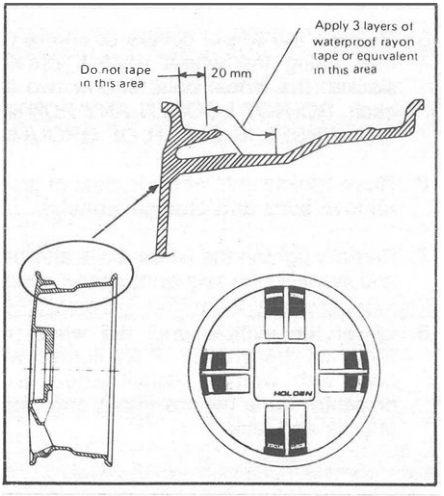
Wheel Covers (SL/X models)

To remove: Push the blade end of the wheel nut wrench between the wheel cover and the wheel and force it in for about half the length of the blade.

Moving round the wheel, lightly pry the cover off at several points by twisting the wrench away from the tyre.

To replace: Position the cover so that the valve hole in the colver is directly over the valve. While pressing the cover firmly against the wheel at the lowest position, knock the cover onto the wheel with several light blows using the palm of the hand. Repeat this operation at several positions around the edge of the cover until a secure installation is obtained.

NOTE: It may be necessary to protect the hand during this operation.



ALLOY WHEEL AND TYRE

The SL/E alloy road wheel has slots cast into the rim section of the wheel to facilitate manufacture. Because of these slots, **it is not recommended to fit the tyres with tubes.** If, in an emergency, tubes are to be fitted, it

is recommended that the slots be covered with 3 layers of 50 mm wide waterproof rayon tape (or equivalent) to prevent chafing of the tube against the edge of the slots. **Do not** apply the tape within 20 mm of the rim flange as this is the tyre bead seating area. Refer to illustration.

At the earliest opportunity a new tubeless tyre should be fitted or the damaged tyre repaired if possible thereby eliminating the need for a tube.

EMERGENCY STARTING

Starting with Auxiliary (Booster) Battery

If your vehicle will not start due to a discharged battery, it can often be started by using energy from another battery — a procedure called "jump starting". This procedure should be used only when the following conditions and CAUTIONS are adhered to. Failure to do so could result in:

- Serious personal injury (particularly to eyes) or property damage from such things as battery explosion, battery acid or electrical burns, or
- Damage to electrical equipment in either vehicle.

If the conditions cannot be met, or if you have any doubts about following the Jump Starting Procedure we strongly recommend for your safety and that of your vehicle that you leave the starting to a competent mechanic.

Conditions
The battery in the other vehicle (booster battery) must be of the same nominal voltage, 12 volts and must be negatively grounded. The nominal voltage and grounding of the other vehicle's battery may be determined by checking the specifications in its owner's manual.

NOTICE: Never use a quick charger to start your engine, as this could result in damage to your vehicle's electrical system.

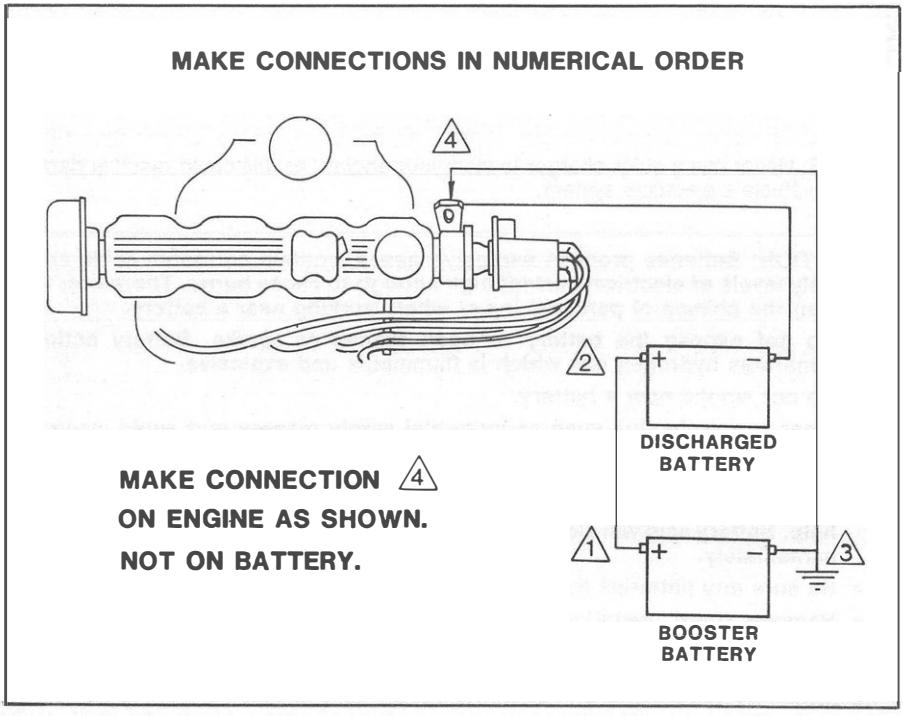
CAUTION: Batteries produce explosive gases, contain corrosive acids and supply levels of electrical current high enough to cause burns. Therefore, to lessen the chance of personal injury when working near a battery:

- **Do not expose the battery to open flames or sparks. Battery action generates hydrogen gas which is flammable and explosive.**
- **Do not smoke near a battery.**
- **Wear eye protection such as industrial safety glasses and avoid leaning over the battery whenever possible.**
- **Do not allow battery acid to contact eyes or skin. Flush any contacted area with water immediately. In case of eye contact you should get medical help. Battery acid will also damage paintwork and fabrics if not washed off immediately.**
- **Be sure any batteries that have filler caps are properly filled with fluid.**
- **Remove rings, metal watch bands and other metal jewellery before working around a battery.**
- **Carefully follow each step in the jump starting procedure.**

Jump Starting Procedure

1. Position the two vehicles so that they are **not** touching and apply the parking brakes. Automatic transmissions are to be placed in 'PARK' and manual transmissions placed into 'NEUTRAL'. Turn off ignition and all lights and accessories in both vehicles except the hazard flasher or any lights needed for the work area.
2. Attach one end of the first jumper cable to the positive terminal of the **booster battery** (identified by a red colour, + or P on the battery case, post or clamp) and the other end of the same cable to the positive terminal of the **discharged battery.**
3. Attach one end of the second jumper cable to the negative terminal (black colour, — or N) of the **booster battery,** and the other end to a solid, stationary, metallic point on the engine of the vehicle with the discharged battery **(do not connect directly to negative post of discharged battery).**

   When making all connections take care that the clamps from one cable do not inadvertently touch the clamps on the other cable. Also ensure that jumper cables are not on or near pulleys, fans or other points that will move when the engine is started.
4. Start the engine in the vehicle which has the good battery and run the engine at a moderate speed. Then start the engine in the vehicle that has the discharged battery.
5. When the engine starts, leave it running then remove the jumper cables by reversing the above installation sequence exactly. While removing each clamp, take care that it does not touch any other metal while the other end remains attached.



PUSH STARTING

With Manual Transaxle

If the engine cannot be started due to a flat battery or inoperative starter, it may be "push" started.

Push Starting
As the push begins, turn the ignition to 'ON', place the transmission in second or third gear and keep the clutch pedal fully depressed.

Check the choke or accelerator pedal setting as they apply to the Starting Procedure in Section 2 of this Manual.

When the car reaches a speed of about 16 km/h, slowly release the clutch pedal to start the engine.

CAUTION: It is not a safe practice to try to start the car by towing it for the following reasons:

- **When the engine starts, the forward surge could cause the car to run into the towing vehicle.**
- **Whilst the engine is not running, the supply of power assistance to the brakes is not available. Therefore, increased braking effort will be required to stop the towed vehicle if necessary.**

With Automatic Transaxle

Cars equipped with automatic transaxle cannot be started by pushing or towing.

If the fault is a flat battery, the engine can be started with the aid of a booster battery.

ENGINE OVERHEATING

CAUTION: If the engine should overheat, as indicated by the Temperature Gauge reading or if you have any other reason to suspect there is a serious overheat condition immediate action is required as outlined in the following section. Continued operation of the engine EVEN FOR A SHORT TIME could result in a fire and the possibility of personal injury and/or severe vehicle damage.

If the coolant temperature gauge needle should move all the way to "H" position and remain there for more than 30 seconds, pull out of the traffic as soon as it is safe to do so and stop the car. Leave the engine idling for a few minutes, whilst you step out of the car to check that the electric cooling fan is working. If the fan is working and the temperature gauge needle has not returned to its normal position within this time then **stop** the engine and proceed as follows:

CAUTION: To help avoid being burned:

- **Do not open the engine hood if you can see or hear steam or coolant escaping from the engine compartment. Wait until no steam or coolant can be seen or heard before opening the hood.**
- **Do not remove the coolant surge tank cap if the engine and radiator are still hot. Scalding fluid and steam can be blown out under pressure which is likely to cause serious personal injury.**

If no steam or coolant can be seen or heard, raise the engine hood. **If the coolant is boiling, wait until it stops before proceeding.** Look at the coolant level in the see-through surge tank. The coolant level should be at or above the 'Cold' mark on the tank.

If the coolant level in the surge tank is low, look for leaks at the radiator hoses and connections, heater hoses and connections, radiator, and water pump. If you find major leaks, or spot other problems that may have caused the engine to overheat, do not run the engine until these problems have been corrected. If you do not find a leak or other problem, then the cooling system should be topped up with specified coolant according to the instructions given in Section 6A under 'Engine Cooling System'. Follow all the steps given for the correct way to remove pressure cap, add coolant, and bleed air from the cooling system if required.

After refilling, start the engine and check for leaks. Once the temperature gauge no longer signals an overheat condition you can resume driving at a reduced speed. Return to normal driving after ten minutes if the temperature gauge does not again show an overheat condition.

If overheating occurs again you should have the vehicle attended to, as soon as possible, by a qualified mechanic.

TOWING A DISABLED VEHICLE

Proper lifting or towing equipment is necessary when lifting or towing the vehicle to prevent damage to it during any towing operation. State and Local laws must be followed. In an emergency, your vehicle may be towed on all four wheels in the following manner.

- Fit the towing equipment to one of the towing eyes on the front subframe below the front bumper. Do not attach to bumpers or brackets.
- Place transmission in neutral position and release the handbrake.
- Switch ignition key to "ACC" to release steering column lock and to permit operation of windshield wipers and turn signals.
- For the sake of safety and to prevent damage to the vehicle it is advisable to avoid jerky movements and to drive slowly during towing operations.
- Remember that power assist for brakes and power steering (where fitted) will not be available when the engine is off.
- To prevent the entry of exhaust fumes from the towing vehicle into the passenger compartment of your vehicle, close the windows and stop entry of air by moving heating and ventilation controls to OFF position.
- Vehicles with automatic transmission should not be towed faster than 50 km/h and no further than 60 km. If a speed of 50 km/h or distance of 60 km is to be exceeded, the front of the vehicle must be raised when towing.
- Vehicles with damaged transaxles must not be towed with the front wheels on the ground. The front of the vehicle must be raised when towing.
- Only the driver should be in a towed vehicle.

SECTION 4 OWNER RELATIONS AND GMH DEALERS

We want you to be happy with your new vehicle and with the people you deal with while you have the vehicle.

Normally, any problems which may arise with the sales transaction, operation or servicing of your vehicle will be handled by your Dealer's Sales and Service department.

We realise however that, with the best intentions, misunderstandings do occur sometimes.

If you have a problem that has not been settled to your satisfaction here's what to do:

Step 1:

Discuss the problem with one of the Dealer's management people. If you feel you haven't got satisfaction from the Sales Manager or Service Manager — go to the General Manager or the Dealer himself.

Step 2:

If it seems that no-one at the dealership can help fully, write to the GMH Zone Owner Relations Manager in your State outlining your problem and including your name, address and telephone number; the vehicle model and vehicle identification number (V.I.N.); date of purchase, current odometer reading and the Dealer's name and address. Some of this information will be on your Vehicle Identification Certificate (inside the front cover).

Step 3:

By now you should have satisfaction. If not, you can write to the GMH National Owner Relations Manager, GMH Sales Pty Ltd, P.O. Box 548D, Melbourne 3001.

GMH
OWNER RELATIONS MANAGERS

QUEENSLAND
General Motors-Holden's Sales Pty. Ltd.,
Box 728, G.P.O.,
BRISBANE, QLD. 4001.

NEW SOUTH WALES AND AUSTRALIAN CAPITAL TERRITORY
General Motors-Holden's Sales Pty. Ltd.,
Box 481, P.O.,
EDGECLIFF, N.S.W 2027.

VICTORIA AND TASMANIA
General Motors-Holden's Sales Pty. Ltd.,
Victorian Zone Service Division,
Box 548D, G.P.O.,
MELBOURNE 3001.

SOUTH AUSTRALIA AND NORTHERN TERRITORY
General Motors-Holden's Sales Pty. Ltd.,
Box 221, P.O.,
ELIZABETH, S.A. 5112.

WESTERN AUSTRALIA
General Motors-Holden's Sales Pty. Ltd.,
P.O. Box 426,
WEST PERTH, W.A. 6005.

AUTHORISED GMH DEALERS

(Note: Dealership names and locations listed are effective at the time of printing. These may change from time to time without notice.)

NEW SOUTH WALES — Metropolitan Dealers

ARNCLIFFE
Suttons Motors (Arncliffe) Pty. Ltd.,
93 Princes Highway

ASHFIELD
Muirs Motors (Ashfield) Pty. Ltd.,
252 Parramatta Road

BALGOWLAH
Ross Hannon Holden
164 Condamine Street

BAULKHAM HILLS
Tony Packard Holden
Cnr. Victoria Avenue & Windsor Road

BELMONT
Young & Green (Belmont) Pty. Ltd.,
444 Pacific Highway

BLACKTOWN
West City Motors
120-128 Sunnyholt Road

CABRAMATTA
Ron Hodgson Holden
266 Hume Highway

CAMPBELLTOWN
Clintons Motors Pty. Ltd.,
3-17 Queen Street

CARDIFF
Brian Kelly Holden
35-39 Macquarie Road

CHATSWOOD
Sundell Holden
815-843 Pacific Highway

CHULLORA
Suttons Motors (Chullora) Pty. Ltd.,
Cnr. Hume Highway & Waterloo Road

CROW'S NEST
J. N. Caldwell (Holdings) Pty. Ltd.,
1 Alexander Street

DEE WHY
Barry Smith Holden
Cnr. May and Mooramba Roads

GOSFORD
Max Kellett Holden
131 Henry Parry Drive

GOSFORD
Noble Motors
Pacific Highway

HOMEBUSH
Suttons Motors (Homebush)
112 Parramatta Road

HOMEBUSH
Gilbert & Roach Pty. Ltd.
167-173 Parramatta Road

HORNSBY
John A. Gilbert Pty. Ltd.,
90 Pacific Highway

KINGSFORD
John Pelligrini Holden
263-271 Anzac Parade

KINGSWOOD
W. L. Chapman Pty. Ltd.,
107-119 Gt. Western Highway

LAKEMBA
Nash Holden
1018 Canterbury Road

LIVERPOOL
A. C. McGrath & Company
Cnr. Castlereagh St. & Hume Highway

MIRANDA
Greg Ball Holden
1-3 Kiora Road

MOSMAN
Norman G. Booth Group Pty. Ltd.,
501 Military Road

NEWCASTLE
Young & Green Pty. Ltd.,
745 Hunter Street

NEWPORT BEACH
Sundell Motors Pittwater
Barrenjoey Road

PADSTOW
Purnell Bros. Holden
19 Davies Road

PARRAMATTA
Fair Deal Car Sales Parramatta
65 Church Street

PARRAMATTA
Hillsdon's Pty Ltd.,
87 Church Street

PENNANT HILLS
Les Vagg Holden
351-355 Pennant Hills Road

RANDWICK
Boyded Randwick
265 Avoca Street

ROCKDALE
C. V. Holland
571 Princes Highway

RYDE
Muirs Motors (Ryde) Pty. Ltd.,
603-605 Victoria Road

ST. MARY'S
Lance Motors Pty. Ltd.,
Corner Glossop & Harris Streets

SPRINGWOOD
Kerry's Motors Pty. Ltd.,
28 Great Western Highway

TORONTO
Young & Green (Toronto) Pty. Ltd.,
Carey Street

WINDSOR
Hawkesbury Valley Motors
122 George Street

WAITARA
Suttons Motors Waitara
90 Pacific Highway

WARILLA
Wilson's Warilla Pty. Ltd.,
29 Shellharbour Road

WOLLONGONG
Dwyers Pty. Ltd.,
31-33 Crown Street

WYONG
W. M. Holden
Pacific Highway

NEW SOUTH WALES — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ADELONG
- ALBURY
- ARMIDALE
- BALLINA
- BARADINE
- BARHAM
- BARRABA
- BATHURST
- BEGA
- BELLINGEN
- BLAYNEY
- BOMBALA
- BOURKE
- BOWRAL
- BREWARRINA
- BROKEN HILL
- CANOWINDRA
- CASINO
- CESSNOCK
- COBAR
- COFF'S HARBOUR
- CONDOBOLIN
- COLLARENEBRI
- COOLAMON
- COOMA
- COONABARABRAN
- COONAMBLE
- COOTAMUNDRA
- COROWA
- COWRA
- CROOKWELL
- CULCAIRN
- DENILIQUIN
- DORRIGO
- DUBBO
- DUNGOG
- EDEN
- FINLEY
- FORBES
- FYSHWICK
- GILGANDRA
- GLEN INNES
- GLOUCESTER
- GOULBURN
- GRAFTON SOUTH
- GRENFELL
- GRIFFITH
- GULARGAMBONE
- GUNDAGAI
- GUNNEDAH
- GUNNING
- GUYRA
- HARDEN
- HAY
- HOLBROOK
- INVERELL
- JERILDERIE
- JUNEE
- KANDOS
- KATOOMBA

- KEMPSEY
- KIAMA
- KURRI KURRI
- KYOGLE
- LAKE CARGELLIGO
- LEETON
- LISMORE
- LITHGOW
- MACLEAN
- MACKSVILLE
- MAITLAND
- MILTON
- MOLONG
- MOREE
- MORUYA
- MOSS VALE
- MUDGEE
- MULLUMBIMBY
- MUNGINDI
- MURWILLUMBAH
- MUSWELLBROOK
- NARRANDERA
- NARRAMINE
- NOWRA
- NYNGAN
- ORANGE
- PARKES
- PEAK HILL
- PORT MACQUARIE
- QUIRINDI
- SCONE
- SINGLETON
- TAMWORTH
- TAREE
- TEMORA
- TENTERFIELD
- TOTTENHAM
- TUMBARUMBA
- TUMUT
- TWEED HEADS
- WAGGA
- WALCHA
- WALLA WALLA
- WALGETT
- WARIALDA
- WARREN
- WAUCHOPE
- WELLINGTON
- WEST WYALONG
- WINGHAM
- WOODENBONG
- YASS
- YOUNG

AUSTRALIAN CAPITAL TERRITORY

BELCONNEN
John Wright Holden
Josephson Street

BRADDON
Beazley & Bruce (ACT) Pty. Ltd.
44 Mort Street

PHILLIP
Commonwealth Motors Pty. Ltd.
158 Melrose Drive

VICTORIA — Metropolitan Dealers

BENTLEIGH
Boyanton Holden
208 Centre Road

BERWICK
Neil & Ross Neilson Pty. Ltd.,
Princes Highway

BRAYBROOK
Kevin Dennis Holden
272 Ballarat Road

BUNDOORA
Watson Holden
413 Grimshaw Street

BURWOOD
Hillyer Motors Pty. Ltd.,
1200 Toorak Road

CAULFIELD
Booran Holden
1049 Glenhuntly Road

CHELSEA
Harrison Holden
370 Nepean Highway

CHELTENHAM
Balmoral Holden
1212 Nepean Highway

DANDENONG
Patterson Cheney Pty. Ltd.,
200 Cheltenham Road

DANDENONG
Graeme Blanchard Holden
Princes Highway

DONCASTER
Lance Dixon Holden
601 Doncaster Road

ELSTERNWICK
Reg. Hunt Motors Pty. Ltd.,
77 Nepean Highway

ESSENDON
Preston Motors (Essendon) Pty. Ltd.,
205-211 Keilor Road

FAWKNER
M. & G. Mantello Holden
1263 Sydney Road

FERNTREE GULLY
Neilson Holden F.T.G.
980 Burwood Highway

FOOTSCRAY
Alan Mance Holden
435 Barkly Street

FOOTSCRAY
Patterson Cheney Pty. Ltd.,
130 Moreland Street

FRANKSTON
Bayside Holden
140 Dandenong Road

GEELONG
R. & B. Smith Pty. Ltd.,
510 Moorabool Street

GEELONG
Winter & Taylor (Sales) Pty. Ltd.,
23 Cavendish Street

GLEN WAVERLEY
Geoff Brady Holden
565-577 Springvale Road

HASTINGS
Westernport Holden
762 Flinders Road

HEIDELBERG WEST
Arthur Ellis Holden
66 Bell Street

LILYDALE
Noel Dight Holden
Main Street

MORNINGTON
Peninsula Holden
Cnr. Nepean Highway & Tyabb Road

OAKLEIGH
Garry & Warren Smith Pty. Ltd.,
1575 Dandenong Road

PRESTON
Graham Hunt Holden
518 High Street

RINGWOOD
Bill Patterson Holden
45-57 Maroondah Highway

SOUTH MELBOURNE
Patterson Cheney Holden
132 Sturt Street

WERRIBEE
Ballan Holden
Princes Highway

WEST MELBOURNE
Reg Hunt Holden
577 King Street

VICTORIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ALEXANDRA
- APOLLO BAY
- ARARAT
- BACCHUS MARSH
- BAIRNSDALE
- BALLARAT
- BENALLA
- BENDIGO
- BERRIWILLOCK
- BIRCHIP
- BOORT
- CAMPERDOWN
- CASTERTON
- CASTLEMAINE
- CHARLTON
- COBRAM
- COHUNA
- COLAC
- COLERAINE
- CORRYONG
- COWES
- DAYLESFORD
- DIMBOOLA
- DONALD
- DROUIN
- ECHUCA
- EUROA
- HAMILTON
- HOPETOUN
- HORSHAM
- KANIVA
- KERANG
- KOOWEERUP
- KORUMBURRA
- KYABRAM
- KYNETON
- LEONGATHA
- MAFFRA
- MANSFIELD
- MARYBOROUGH
- MILDURA
- MINYIP
- MORTLAKE
- MURRAYVILLE
- NAGAMBIE
- NHILL
- NULLAWIL
- NYAH
- OMEO
- ORBOST
- PORT FAIRY
- PORTLAND
- QUAMBATOOK
- RAINBOW
- ROCHESTER
- RUTHERGLEN
- SALE
- SEA LAKE
- SEYMOUR
- SHEPPARTON
- ST. ARNAURD
- STAWELL
- SWAN HILL
- TALLANGATTA
- TIMBOON
- TRARALGON
- UNDERBOOL
- WANGARATTA
- WARBURTON
- WARRACKNABEAL
- WARRNAMBOOL
- WODONGA
- WONTHAGGI
- WYCHEPROOF
- YARRAM
- YARRAWONGA

TASMANIA — Metropolitan & Country Dealers & Service Dealers

HOBART
Motors Pty. Ltd.,
179 Macquarie Street

BURNIE
Motors Pty. Ltd.,
84-89 Marine Terrace

DEVONPORT
Motors Pty. Ltd.,
628 Victoria Parade

KING ISLAND
King Island Motors Pty. Ltd.,
Netherby Road, Currie

LAUNCESTON
Motors Pty. Ltd.
165 Brisbane Street

SMITHTON
Motors Pty. Ltd.,
16 Nelson Road

ULVERSTONE
Motors Pty. Ltd.,
99 Reibey Street

QUEENSLAND — Metropolitan Dealers

ALBION
Bill Harrison Car Sales
Frodsham Street & Crosby Road

ASPLEY
Zupps (Aspley) Pty. Ltd.,
1442 Gympie Road

CLEVELAND
Russell Smith Holden
Cnr Queen & Doig Streets

IPSWICH
Zupps Holden
Warwick Road & Churchill Street

MOOROOKA
John Sivyer Holden
1060 Ipswich Road

MT. GRAVATT
Zupps Motors Pty. Ltd.,
1310 Logan Road

NEWSTEAD
Eagers Retail Pty. Ltd.,
95 Breakfast Creek Road

NUNDAH
Eagers (Northside)
1319 New Sandgate Road

PETRIE
North Pine Motors Pty. Ltd.,
Gympie Road

REDCLIFFE
Village Holden
425 Elizabeth Avenue

SPRINGWOOD
Motorama Holden
Pacific Highway & Brennan Street

TARINGA
Centenary Holden
135 Moggill Road

WINDSOR
Leach Motors
146 Newmarket Road

WYNNUM
Doug Barton Holden
200 Tingal Road

QUEENSLAND — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ATHERTON
- AUGATHELLA
- AYR
- BEAUDESERT
- BEERWAH
- BILOELA
- BOWEN
- BUNDABERG
- CABOOLTURE
- CAIRNS
- CALOUNDRA
- CHARLEVILLE
- CHARTERS TOWERS
- CLERMONT
- CLONCURRY
- CROWS NEST
- CUNNAMULLA
- DALBY
- DIRRANBANDI
- EMERALD
- GATTON
- GLADSTONE
- GOONDIWINDI
- GYMPIE
- INGHAM
- INNISFAIL
- JULIA CREEK
- KILCOY
- KINGAROY
- LAIDLEY
- LONGREACH
- MACKAY
- MAREEBA
- MARYBOROUGH
- MONTO
- MOURA
- MT. ISA
- MURGON
- NAMBOUR
- NANANGO
- PROSERPINE
- QUILPIE
- ROCKHAMPTON
- ROMA
- SOUTHPORT
- SPRINGSURE
- STANTHORPE
- ST. GEORGE
- TARA
- TOOWOOMBA
- TOWNSVILLE
- TULLY
- WARWICK
- WINTON

SOUTH AUSTRALIA — Metropolitan Dealers

ADELAIDE
City Holden
203-221 Grenfell Street

ADELAIDE
United Motors Retail Ltd.
72 Franklin Street

ELIZABETH
Peter Page Holden
Elizabeth Way

GLENELG
John H. Ellers Pty. Ltd.,
282 Brighton Road

MALVERN
Claridge Motors Pty. Ltd.,
361-367 Unley Road

MILE END
United Motors Retail
71 West Beach Road

PORT ADELAIDE
Smith Motor Co. Pty. Ltd.,
171 Commercial Road

VALLEY VIEW
Plaza Holden
817-839 North East Road

SOUTH AUSTRALIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- BALAKLAVA
- BERRI
- BURRA
- CEDUNA
- CLEVE
- CRYSTAL BROOK
- CUMMINS
- GLADSTONE
- JAMESTOWN
- KADINA
- KEITH
- KINGSCOTE
- KINGSTON
- LAMEROO
- LOXTON
- LUCINDALE
- MAITLAND
- MALLALA
- MENINGIE
- MILLICENT
- MINLATON
- MT. BARKER
- MT. GAMBIER
- MURRAY BRIDGE
- NARACOORTE
- ORRORO0
- PETERBOROUGH
- PORT AUGUSTA
- PORT BROUGHTON
- PORT LINCOLN
- PORT PIRIE
- QUORN
- RENMARK
- STRATHALBYN
- TANUNDA
- TUMBY BAY
- VICTOR HARBOUR
- WAIKERIE
- WHYALLA
- WUDINNA
- YANKALILLA

NORTHERN TERRITORY — Dealers

ALICE SPRINGS
Kittle Bros. (Alice Springs) Pty. Ltd.,
Cnr Wills Terrace & Railway Terrace

DARWIN
Suttons Motors (Darwin) Pty. Ltd.,
Cnr Mitchell and Knuckey Streets

WESTERN AUSTRALIA — Metropolitan Dealers

BELMONT
Major Motors
225 Great Eastern Highway

CANNINGTON
Brian Gardner Holden
1308 Albany Highway

FREMANTLE
Shacks Holden
64 Queen Victoria Street

GOSNELLS
Lance Gibbons Holden
2325 Albany Highway

MELVILLE
Melville Motors Pty. Ltd.,
532-536 Canning Highway

MIDLAND
John Goldie Holden
161 Great Eastern Highway

MORLEY
Metro Motors Pty. Ltd.,
212 Walter Road

NAVAL BASE
Shacks Cockburn
15 Rockingham Road

OSBORNE PARK
North City
Cnr. Scarborough Beach Rd.
& Harbourne Street

PERTH
City Motors
505 Newcastle Street

VICTORIA PARK
Young's Holden
529 Albany Highway

WANNEROO
Phoenix Holden
316 Berriman Drive

WESTERN AUSTRALIA — Country Dealers & Service Dealers

Consult your local Yellow Pages under Motor Cars — New for Addresses and Telephone Numbers.

- ALBANY
- BEVERLEY
- BOYUP BROOK
- BRIDGETOWN
- BROOKTON
- BRUCE ROCK
- BUNBURY
- BUSSELTON
- CARNAMAH
- CARNARVON
- COLLIE
- CORRIGIN
- CRANBROOK
- DALWALLINU
- DENMARK
- ESPERANCE
- EXMOUTH
- GERALDTON
- GNOWANGERUP
- GOOMALLING
- KALGOORLIE
- KAMBALDA
- KARRATHA
- KATANNING
- KELLERBERRIN
- KUNUNURRA
- MANDURAH
- MANJIMUP
- MERREDIN
- MOORA
- MORAWA
- NAREMBEEN
- NARROGIN
- NORSEMAN
- NORTHAM
- PINGELLY
- PORT HEDLAND
- QUAIRADING
- WAGIN
- WILLIAMS
- WYALKATCHEM

SECTION 5 APPEARANCE CARE

CAUTION: Many cleaners may be poisonous or flammable or may cause damage to the vehicle interior/exterior. To help avoid serious personal injury and/or damage to the vehicle while using any cleaning agents or chemicals you should:

- **Follow the cleaning product manufacturers recommendations.**
- **Before using a product, ensure that it will not be harmful to the materials used in your vehicle.**
- **Ensure that the vehicle is well ventilated while using any cleaning agents in the interior.**
- **If using any flammable cleaning substance, do not allow naked flames or lighted cigarettes near the vehicle.**

CARE AND CLEANING OF THE INTERIOR

Cleaning Fabric-Type Trim

Dust and dirt which accumulates on the surface of fabric-type trim should be removed regularly with a vacuum cleaner or soft brush.

It is essential that spots or stains be removed from trim fabric as soon as possible after they have been made. If allowed to remain on the fabric for any length of time they very often become oxidised or set, and removal becomes difficult if not impossible.

REMOVAL OF NON-GREASY STAINS — Includes tomato sauce, coffee (black), egg, fruit, fruit juice, milk, soft drinks, wine, blood, etc.

- Carefully scrape of excess stain, then sponge fabric with cool water.
- If a stain remains, use a mild soap solution or cleaner such as AC Delco Fabric and Vinyl Cleaner.
- **Use suds only on a clean sponge or soft bristle brush. Do not saturate the fabric or rub it harshly with a brush. Immediately after cleaning, wipe off excess suds with a slightly damp absorbent cloth.**
- **Immediately after wiping, force-dry the fabric with an air hose or hair dryer.** (Use caution with hair dryer to help prevent fabric damage.)

REMOVAL OF GREASE, OIL AND FAT STAINS — Includes grease, oil, butter, margarine, shoe polish, coffee with cream, chewing gum, cosmetic creams, vegetable oils, wax crayon, tar and asphalts.

- Carefully scrape off excess stain, then use a suitable Spot Cleaner (Solvent Type). USE VERY LITTLE CLEANER, light pressure and clean cloths (preferably cheese-cloth). Cleaning should start at the outside of the stain, "FEATHERING" toward the centre. Keep changing to a clean section of the cloth.
- When you clean a stain from fabric, immediately dry the area with an air hose or hair dryer to help prevent a cleaning ring. (Use caution with hair dryer to help prevent fabric damage.)

- If a ring forms, immediately repeat the cleaning operation over a slightly larger area with emphasis on "FEATHERING" towards its centre.
- Shoe polish, wax crayons, tar and asphalts will stain if left on trim, they should be removed as soon as possible. Use caution as the cleaner will dissolve them and may cause them to "bleed".

After cleaning, or better still when the vehicle is new, apply AC Delco Fabric Protector to help guard the fabric from future soiling.

Cleaning Vinyl Trim

Vinyl trim material should be regularly wiped over with a damp cloth to remove surface dust and dirt.

Should dirt accumulate and become embedded in the material pattern, the following procedure is recommended.

1. Using luke warm water and soap, or AC Delco Velour Fabric and Vinyl Cleaner, work up thick suds on a piece of cheesecloth, and apply to the surface. A soft bristle brush can be used to advantage to remove stubborn stains or dirt embedded in the grain of the material.
2. Wipe off suds with a damp clean cloth.
3. Wipe dry with a soft cloth.

Cleaning Carpet

Thoroughly brush or vacuum the carpet to remove loose dirt etc. If the carpet is extremely soiled it can be cleaned using AC Delco Velour Fabric & Vinyl Cleaner. Clean approximately one square foot at a time. After cleaning the carpet, use an air hose or hair dryer to dry the carpet.

Cleaning Seat Belts

Cleaning of the seat belts can be carried out by using a mild non-abrasive soap and luke warm water. After washing be sure to thoroughly sponge the washing solution out of the belts. Do not allow the belts to retract until they are thoroughly dry. Do not bleach or dye belts since this may severely weaken them.

Glass Surfaces

Glass surfaces should be cleaned on a regular basis. Use of AC Delco Glass Cleaner or a commercial household glass cleaner will remove normal tobacco smoke and dust films sometimes caused by ingredients used in vinyls and interior plastics.

Never use abrasive cleaners on any vehicle glass, as they may cause scratches. If abrasive cleaners are used on the inside of the rear window the electric defroster element may be damaged. Avoid placing decals on the inside rear window, since they may have to be scraped off later.

CARE AND CLEANING OF THE EXTERIOR

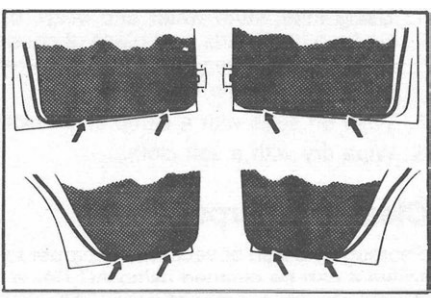
Before washing the paintwork on your vehicle check that the door drain holes and rocker panel vents are not blocked. The underbody should also be cleaned to remove deposits of mud and corrosive products.

Underbody

When a vehicle has been used under conditions exposing it to excessive mud and/or corrosive materials resulting from boat launching, driving along beaches or on tracks through fertilized paddocks, etc. — the underbody and wheels must be thoroughly flushed with fresh water to remove any deposited mud or corrosive material. Failure to perform this underbody cleaning promptly can result in accelerated rusting and deterioration of underbody components such as brake and fuel lines, frame, underbody floor pan, exhaust system, brackets, parking brake cables, etc.

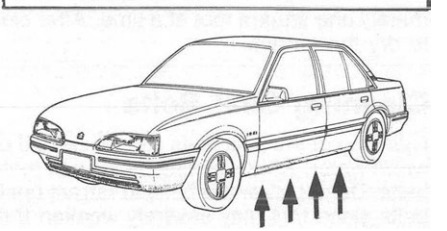
Door Drain Holes

It is important that the drain holes at the bottom of the door panels are checked to make sure that they are free of dirt and foreign matter, which could trap water inside the panels. Clogged drain holes can be cleaned with a small blunt ended instrument, taking care not to damage the protective coating applied to the inside of the doors.



Rocker Panel Vents

These vents which are located on the bottom edge of the rocker panels (see illustration) should be checked regularly to ensure they are free of blockage. Clear if necessary with a blunt ended instrument.



Care of Paintwork

The acrylic lacquer finish on your vehicle will maintain its new appearance for a long time provided it is cleaned and cared for regularly according to the recommendations given in this section.

Although the paintwork of the vehicle will provide a high degree of protection against the weather, normal wear and deterioration will take place when it is exposed to the elements for prolonged periods of time. **You should therefore protect or garage your vehicle whenever possible.**

Washing

If the vehicle is in continuous use, it should be washed regularly. Washing not only removes dirt and general road grime that settles on the vehicle but also dilutes those airborne acids resulting from industrial and natural fallout. Regular washing of vehicles located in coastal areas, to remove salt deposits, is essential if corrosion is to be avoided.

NORMAL WASHING PROCEDURE:

Before washing, ensure that the vehicle is cool. DO NOT wash paintwork while the car is exposed to strong, hot, direct sunlight.

(a) With cold running water and starting from the roof, hose the vehicle all over from top to bottom. Do not use sponge or cloth at this stage. This will remove grit and other loosely adhering substances which could otherwise scratch the paint in the operations to follow.

(b) To a normal household bucket filled with lukewarm water, add NO MORE than two capfuls (approx. 15 ml) of a liquid detergent.

(c) Soak a clean sponge in the bucket then apply liberally by wiping over the roof area of the vehicle and all the exterior glass. Do not allow to dry out. Rinse off immediately with cold running water from the hose.

(d) Repeat this process all over the remainder of the vehicle leaving the wheels until last. Do only a section at a time and do not forget to rinse off the 'soapy' section before it dries.

(e) After a final cold water rinse all over, the vehicle should be dried with a good quality chamois paying particular attention to all glass and chromed trim.

Polishing

Regular polishing with a mild polishing cream, such as AC Delco part number M37220 available from your GMH Dealer, will enhance the appearance of the paintwork. Polishing also assists in the removal of foreign deposits not normally removed from paint finish by washing. Over a period of time such deposits may build up on the paint surface to the detriment of its overall appearance.

The use of silicon type polish on the paint finish before it has properly cured (before the paint solvents have completely evaporated — approximately three months from manufacture) is not recommended.

If silicon type polishes are used after this paint curing period, apply polish sparingly to avoid build up of polish layers on the paint film. These layers of polish detract from the original sheen of the paint finish.

NOTICE: Do not attempt to apply any polish to paint finish without first thoroughly washing the vehicle.

Removing Harmful Deposits

It is most important that any deposited material, whether natural or industrial, be removed from the paintwork at the earliest opportunity. **Prolonged contact may lead to permanent marring of the paintwork.**

BIRD & INSECT EXCRETION, TREE SAP & OTHER NATURAL DEPOSITS — For this type of stain removal FIRST use a warm water detergent mixture as for washing, and rinse off with clean, running water. Repeat if necessary and dry. Many 'Natural' types of fall out are water soluble and will be removed with this simple method.

GREASE, OIL, TAR & OTHER BITUMINOUS TYPE DEPOSITS — Remove with a little kerosene or mineral turpentine and then thoroughly hose and wash treated area immediately.

NOTICE: Do not apply kerosene or mineral turpentine to hot paintwork. Always allow paintwork to cool down first. Also, do not allow petrol to contact paintwork. Should this occur, wash off petrol immediately with clean water.

Any staining or spotting which remains after removing the deposits may possibly be removed by polishing.

Repairing Damaged Paintwork

Regular inspection of the vehicle should be made for scratch marks, cracks or damaged areas, all of which could develop rust and thus affect paint finish. Any deep scratches, cracks or break-down in the finish should be repaired without delay. Care should be taken to ensure that any rusting is counteracted immediately, otherwise rust "creep" will extend beyond the damaged area. This applies particularly in sub-tropical areas or coastal districts, where the moist or salt-laden atmosphere accelerates rusting if it is allowed to develop through neglect.

Cleaning Bumper Bars & Body Side Mouldings

Painted plastic bumpers and body side mouldings (where fitted) can be cleaned and polished according to the instructions given for the normal vehicle paintwork.

Unpainted plastic bumpers and body side mouldings (where fitted) can be washed normally but should NOT be polished.

Polishing may lead to unsightly entrapment of polish residue in the grained finish.

Windscreen Cleaning

It is important, at all times, that the windshield surface be maintained in a clean condition so that the wiper blades may be as effective as possible in wiping clean the surface.

Abrasive materials must never be used to clean glass as they can cause scratches. A scratched windshield will cause difficulty in achieving proper vision, particularly in night driving. After the windshield has been cleaned with a wet sponge etc., it should be wiped over with a soft lint free cloth or chamois.

It is recommended that AC Delco 'Optikleen' be added to the washer reservoir at the concentration specified on the package. (NOTE: Excessive concentration of Cleaner may affect paint finish.) This solution is more effective than plain water in cleaning the windscreen and also reduces any tendency for the wiper blades to shudder.

Wiper Blade Maintenance

Much of the oil and road scum thrown up onto the windshield glass, causing smearing when the wiper is switched on, transfers onto the wiper blade. Many owners, whilst they methodically clean the windshield glass, omit to clean the wiper blades and consequently smearing of the glass re-appears immediately the wiper blades are set in motion.

The blades can be cleaned by simply lifting them off the windshield glass and then washing the wiping edge carefully with warm water and a suitable detergent.

NOTICE:

- **Never operate the wiper blades by hand as this may damage the wiper drive mechanism.**
- **Old or poorly maintained wiper blades can cause windscreen scratching and/or a smeary wipe. Therefore, the rubber element should be checked regularly and be replaced once or twice each year.**

- **If your vehicle is to be stored for long periods the blades should be lifted clear of the windscreen by placing the arms in the ''lock back'' position. Failure to do this can result in the rubber element becoming permanently distorted.**

Cleaning Tyres

Sponging with cold water is all that is necessary for normal cleaning of the tyres. Oil and grease should be removed with soap, and water or detergent. For tar or other substances, a mild abrasive, such as mechanics' hand soap or kitchen cleaning powder, may be used if necessary. Thoroughly wash the tyres with water to finish. Petrol must not be used for cleaning tyres.

New tyre look can be restored by using AC Delco Tyre Black.

Cleaning Alloy Wheels

To preserve the original appearance of alloy wheels (where fitted) keep them clean and free from build up of road dirt. AC Delco Mag Wheel Cleaner can be used for cleaning most alloy wheels, however, it is not suitable for cleaning highly polished alloy wheels. (Refer to instructions on bottle.) Do not use abrasive cleaners, as they could damage the protective coating.

APPEARANCE CARE AND MAINTENANCE MATERIALS

GMH PART NO.	SIZE	DESCRIPTION	USAGE
M37432	390 x 370mm	Synthetic Chamois	Absorbs water and cleans paint, glass and chrome surfaces.
*M37226	375ml	Wash & Wax	Cleans away dirt and grime at the same time adds a lustrous shine.
*M37221	375ml	Liquid Silicon Polish	Imparts a high gloss, long lasting shine.
M37220	250g	Polishing Cream	Restores lustre to dull and faded paint.
M38695	250ml	Glass Cleaner	Cleans all glass surfaces.
M37933	500ml	Optikleen	Windshield washer solvent.
M38692	250ml	Mag Wheel Cleaner	Cleaning of all magnesium alloy wheels.
M38693	400g	Fabric Protector	Repels oil, grease and water-borne stains on most fabrics.
M38424	350g	Velour Fabric and Vinyl Cleaner	Cleans and deodorises velour, most fabric and vinyl upholstery, hood linings, mats and carpets.
M38696	250ml	Vinyl and Rubber Conditioner	Preserves and protects vinyl, leather and rubber.
M37429	304 x 250mm	Demister Cloth	Delays formation of mist on treated glass surfaces.
M38694	250ml	Tyre Black	Low-sheen natural rubber finish for tyres.
M37223	400g	Degreaser	Removes oil and grease from motors.
M37225	175g	AC-4	— Dispenses moisture on wet motors and electrical components. — Penetrates and loosens rusted or seized parts. — Lubricates and protects against corrosion. — Inhibits corrosion on battery terminals.
92025647	500ml	Brake Fluid	For use at brake service.
M39060	500ml	Engine Coolant and Corrosion Inhibitor	— Helps protect radiators and cooling system. — Prevents rusting and sludge build-up.
M33028	27g	Solid Oil	Lubricant for locking mechanisms, door hinges, sticking windows.
M39168	100 ml	Car Freshener	Deodorant — removes tobacco smoke and other odours.
M39169	250 ml	Spot Cleaner	Multi purpose spot and stain remover for trim and carpets.

* Do not use on new paintwork less than three months old.

SECTION 6A GENERAL MAINTENANCE INFORMATION

General Motors-Holden's Limited recommends that your vehicle be serviced at authorised GMH Dealers. These dealerships are equipped with facilities, trained personnel and General Motors parts to service and maintain your vehicle to factory recommendations.

The routine checks and scheduled maintenance services your car requires are described in the "GMH Maintenance Plan" in Section 6B of this handbook. Also included in Section 6B are the Owner's and Dealer's responsibilities related to servicing of vehicles. Ensure that you fully understand these responsibilities as failure to do so may affect your warranty.

The "GMH Maintenance Plan" is supplemented by this section (6A) which describes in detail many of the items that require servicing. GMH also publishes various service manuals which are available from your Dealer or from:—

Stan H. Earle,
46 Isabella Street,
Moorabbin, Vic., 3189.

CAUTION: As with any machine, take care when making any check, doing any maintenance, or making any repair, to avoid being injured. Note that some of the materials in this car may be hazardous if used, serviced, or handled improperly. Improper or incomplete service could also lead to the vehicle not working properly which may result in personal injury, or damage to the car or its equipment. If you have any question about carrying out some service, have the service done by a skilled technician.

REPLACEMENT FASTENERS

During vehicle maintenance, any fasteners used to replace older ones must have the same measurements and strength as those removed. Fasteners taken from the car should be saved for re-use in the same spot except where a mandatory replacement is required. Where a fastener cannot be used again, take care to choose a replacement that matches the old one. When retightening always use the specified torque (refer to Service Manual). For information and help, see your GMH dealer.

CAUTION: This car is primarily dimensioned in the metric system. Most fasteners are metric and many are very close in dimension to common imperial and SAE fasteners. Mismatched or incorrect fasteners can result in damage to the car or possibly personal injury.

ENGINE OIL AND FILTER RECOMMENDATIONS

It is vital that the following engine oil recommendations are adhered to if you are to obtain optimum reliability and life from your vehicle's engine.

Initial Oil Fill and Running-In

A high quality 'SF' oil was installed in your engine at the factory. It is not necessary to change this factory installed oil prior to the first recommended normal change period. During the running-in period you should check the oil level more frequently since oil consumption may be higher until the piston rings become seated.

Checking Oil Level

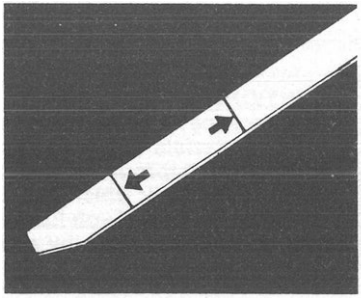
The engine oil must be maintained at the right level to assure proper lubrication of your car's engine. It is the owner's responsibility to check the oil level at regular intervals, according to the following instructions.

The best time to check it is before running the engine. This will allow oil that has been circulated through the engine to drain back into the crankcase.

If the oil level is to be checked after the engine has been running, sufficient time must be allowed for the oil to drain back into the crankcase. To assist in the above, it is suggested that during a refuelling stop, the oil level check should be the final operation carried out.

To make an accurate oil level check:

- Park the car on a level surface.
- Remove the dipstick and wipe it clean.
- Reinsert the dipstick all the way into the tube for an accurate reading.
- Remove the dipstick and check the oil level. It should be between the two markings.
- After taking the reading, replace the dipstick in its tube.



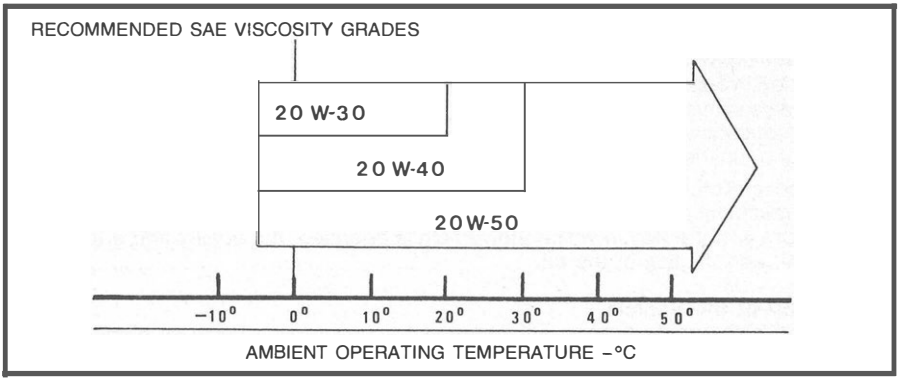
If the dipstick shows the oil level below bottom mark, add sufficient oil into the oil filler located on the rocker cover to raise the level to the top mark.

The distance between the top and bottom marks represents approximately 0.75 litre of oil.

Do not overfill.

Choosing the Right Quality and Grade of Oil

Use only premium quality SF oil (API Service classification) having the correct S.A.E. Viscosity grade suitable for the climatic conditions in which the vehicle is driven. Refer to the chart below when choosing suitable engine oil grade to suit the ambient temperature range anticipated for the period during which the oil will be used.



NOTICE: Non-detergent, break-in oils and other low quality oils are specifically not recommended for use in your engine. Similarly, the use of tune up compounds, friction reducing compounds and other supplemental additives is not recommended. Use of any of these may void your new vehicle warranty.

Oil Change Intervals

Under **normal** operating conditions the engine oil should be changed at the 5000 km (or 3 month) Service then at every 10,000 km (or 6 months) thereafter.

However, if the vehicle is operated under **extreme conditions** such as continuous driving on dusty roads, towing long distances or stop/start short distance driving, then the oil will need to be changed more frequently. Under these conditions it is recommended that the oil be changed every 5000 km or 3 months, whichever occurs first. Refer to 'Vehicle Operating Conditions' in Section 6B for more details.

Used Oil Disposal

Do not dispose of used engine oil (or any other oil) in a careless manner such as pouring it on the ground, into sewers, or into streams or bodies of water. Instead, recycle it by taking it to a used oil collection facility which may be located in your area. If you have a problem disposing of your used oil, it is suggested that you contact your dealer or a service station.

Oil Filter Replacement

The oil filter should be replaced at the 5000 km (or 3 month) service then at every 10,000 km (or 6 months) thereafter.

However, under prolonged dusty driving conditions it is recommended that the filter be replaced every 5,000 km or 3 months, whichever occurs first.

NOTE: When replacing the oil filter remember to add additional oil. Refer to engine oil capacities in Section 7. Always use AC brand oil filters for replacement purposes.

Some Notes on Oil Consumption

Every internal combustion engine uses a certain amount of oil, especially during the running in period. Your engine is dependant on oil to lubricate the cylinder walls, pistons, rings and valve stems. A thin film of oil is left on the cylinder walls, some of which is carried into the combustion chamber and burnt during the combustion process. This also applies to the film of oil on the valve stems which is drawn into the combustion chamber and burnt.

There are several other factors that contribute to the rate of oil consumption in your engine, apart from mechanical malfunctions such as worn pistons, rings, valve stems and guides. These factors are: the way in which the vehicle is operated, the quality and grade of oil, the oil level, and dilution of the oil.

- **Operation of the Vehicle**
  Sustained high engine speeds will increase oil consumption because higher speeds increase engine temperature which lowers oil viscosity thus allowing more oil to reach the combustion chamber. Towing a heavy load will also result in increased oil consumption due to increased engine temperature and hence lower oil viscosity.

  It is recommended that heavy load towing be done only after the vehicle has been 'run-in'.

- **Quality and Grade of Oil**
  Oil viscosity is a significant factor in oil consumption, therefore if you use an oil which is too "thin" (low viscosity) your oil consumption will increase. Refer to the chart in this section for the correct grade of engine oil to suit your driving conditions.

- **Oil Level**
  Maintaining a proper oil level is also an important factor in controlling oil consumption. An overfull crankcase allows the reciprocating parts of an engine to splash oil onto the cylinder walls in quantities greater than the piston rings can control. This excess oil will be drawn into the combustion chamber and burnt. Refer to 'Checking Oil Level' in this section for maintaining correct levels.

- **Dilution**
  Probably the most prevalent complaint of oil consumption comes from the motorist whose vehicle is frequently driven at below normal operating temperatures. The oil becomes diluted by fuel and moisture which settles in the oil pan and may even raise the oil level creating a false reading on the oil level dipstick. For example, in a vehicle that has accumulated 1,500 kilometres of short distance or intermittent city operating and has consumed a normal amount of oil, the level may not have dropped from the "Full" mark, due to dilution. If this vehicle is driven for some distance at highway speeds on a warm day, the dilution elements evaporate, lowering the oil level and the motorist assumes the oil "lost" has been consumed in the highway operation.

  After taking into account the above factors, if you are still concerned that your engine has excessive oil consumption then you shouid discuss the situation with a GMH Dealer. Remember that an engine's oil consumption should not be judged until it has run at least 7,000 kilometres.

TRANSAXLE LUBRICANTS

Manual transaxle

The oil level in the manual transaxle must be checked and/or replaced at the intervals specified in the Maintenance Schedule. Refer Section 6B.

With the vehicle standing on level ground, remove the filler plug and check that oil is level with bottom of filler plug opening. The plug is located on transmission mounting face at rear of right hand drive shaft.

NOTE: If the transaxle requires topping up, the breather plug in the shift cover must be removed before adding lubricant. Refer to Service Manual for details.

For the correct specification of oil to use in the transaxle refer to the lubricant chart in Section 7, "Specifications".

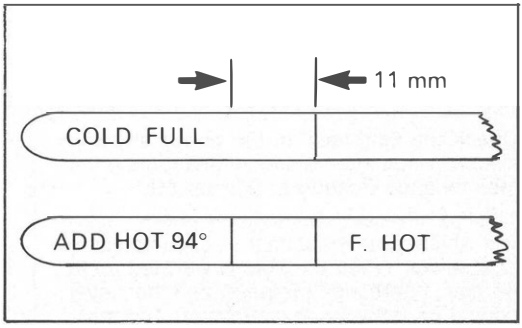
Automatic Transaxle

The oil level in the automatic transaxle must be checked and the oil replaced at the intervals specified in the Maintenance Schedule contained in Section 6B.

FLUID LEVEL — COLD CHECK

The procedure for checking a cold transaxle is as follows:

1. Vehicle to be parked on level surface.
2. Apply the parking brake and place the shift lever in PARK. DO NOT MOVE THROUGH RANGES.
3. Start the engine.
4. Check the fluid level. This check must be performed after the engine has been allowed to idle for one minute and not longer than two minutes. To check the level, withdraw the dipstick, wipe it clean, insert it as far as it will go and then remove it. The correct level is between the mark and 11 mm below the mark on the side of the dipstick marked "COLD FULL". If the level is below this range add 0.25 to 0.50 litres.



AUTO TRANSAXLE DIPSTICK

FLUID LEVEL — HOT CHECK

To check the fluid level when the transaxle is warmed up to normal operating temperature the following procedure should be used:

1. Park vehicle on level surface and leave engine idling.
2. Apply the parking brake and place the shift lever in PARK.
3. To check the level, withdraw the dipstick, wipe it clean, reinsert it as far as it will go and then remove it. The correct level is between the two marks on the side of the dipstick marked 'ADD HOT 94°'. The topping-up quantity between these two marks is 0.5 litre.

FLUID LEVEL — NOTES:

- For the correct specification of fluid to use in the automatic transaxle refer to the Lubricant Chart in Specifications, Section 7.

- Extreme cleanliness should be exercised during checking and topping-up operations since any dirt particles entering the transaxle could cause severe malfunctions.
- The fluid level in a hot auto transaxle must, for design-related reasons, be lower than for the cold transaxle.
- If it has been necessary to add fluid repeatedly, have the transaxle checked by your GMH Dealer to determine the cause.

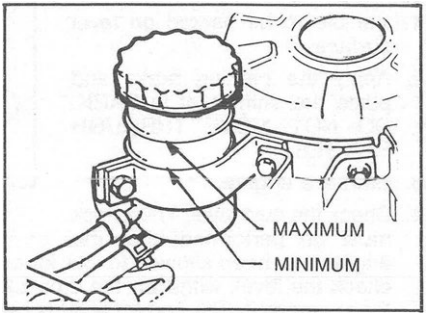
SERVICING

As all adjustments, cleaning and servicing of automatic transmissions requires specialised equipment and knowledge it is recommended that these operations be performed by an authorised GMH Dealer.

POWER STEERING SYSTEM FLUID LEVEL

Check the fluid level in the power steering system at the intervals recommended in the Maintenance Schedule, Section 6B.

The fluid level is checked at the plastic reservoir which is mounted on the passenger side strut tower. When the fluid is warmed up to normal operating temperature the level should be between the minimum and maximum indicators on the outside of the reservoir.



If fluid is at, or below the minimum mark, fluid should be added to the appropriate level.

Do not overfill the reservoir.

Refer to Lubricant Specifications in Section 7 for the correct power steering fluid to use.

This fluid does not need periodic changing under normal service conditions.

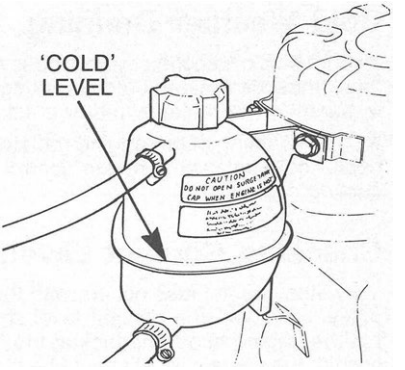
ENGINE COOLING SYSTEM

CAUTION:

- **OVERHEATING — If your cooling system overheats, see "Engine Overheating" in Section 3. Continued operation of the engine even for a short time could result in a fire and the possibility of personal injury and/or severe vehicle damage.**
- **ELECTRIC COOLING FAN — Your vehicle is fitted with a temperature controlled electric radiator cooling fan as standard equipment. Therefore, when working around the engine compartment with the engine running or ignition ON, keep clear of the fan as it may start operating without warning.**

The cooling system on your Camira's engine is a sealed, pressurised system having a remote coolant surge tank which is fitted with a threaded pressure relief cap. As coolant in the system expands with heat it overflows into the surge tank. Coolant level in the surge tank remains relatively constant throughout normal vehicle operation, as coolant which enters the surge tank is returned to the engine via a feed hose connected to the tank's base.

Fluctuation of coolant level in the surge tank occurs until the engine thermostat has opened and the cooling system temperature stabilises. This is normal operation.



Corrosion Inhibitor

To protect components of the cooling system from corrosion your new vehicle was filled with coolant containing corrosion inhibitor to GM Specification HN1109. It is recommended that all future additions of coolant to the system should be made with a pre-mixed coolant comprising clean water and corrosion inhibitor meeting GM Specification HN1109. Use 250 ml inhibitor for a complete refill (30 ml per litre).

NOTE: Corrosion inhibitor performance cannot be guaranteed at concentrations other than those specified.

If you live in an area where water has a high level of mineral or chemical content use rainwater or distilled water. If you need to use bore water in an emergency, change it for the correct coolant as soon as possible.

Anti-Freeze Fluid

If your vehicle is to be parked overnight or operated for any length of time in regions where temperatures of 0°C or below are encountered the use of a suitable brand of anti-freeze fluid is essential.

The recommended anti-freeze fluid is permanent type (ethylene/glycol) meeting GM Specification 1899-M. Follow carefully the anti-freeze manufacturer's instructions when adding anti-freeze to the cooling system.

For protection down to −16°C and also to provide adequate corrosion resistance, use a mixture of not less than 35% (by volume) anti-freeze and 65% (by volume) of clean water.

Anti-freeze also contains a corrosion inhibitor therefore it is not necessary to add a separate inhibitor.

NOTE: Do not mix different types of anti-freeze or corrosion inhibitors as they may be incompatible. If a different type has been used in the cooling system flush the system with clean water before refilling with coolant containing the recommended corrosion inhibitor or anti-freeze fluid.

CAUTION: Corrosion inhibitors and anti-freeze fluids are poisonous. Use extreme care when handling these materials, particularly when draining your vehicle's cooling system. If swallowed seek medical attention.

Cold Weather Draining

If your vehicle's cooling system does not contain anti-freeze then the radiator and cylinder block must be drained before parking in freezing conditions. Failure to do so could result in bursting the radiator and/or cracking the cylinder block if the coolant freezes.

NOTE: Draining of the engine radiator and cylinder block will not drain coolant out of the heater core unless the heater control lever is in the full 'HOT' position when draining the cooling system.

Checking Coolant Levels

Very little coolant loss occurs with the surge tank system if the system is operating normally. However, the coolant level should be checked weekly when the engine is cold. Lift the engine hood and look at the 'see-through' coolant surge tank. When the engine is cold, the coolant level should be at or slightly above the 'COLD' mark on the tank. Top up the tank, as necessary, with a premixed solution of clean water and corrosion inhibitor **or** anti-freeze fluid depending on which additive is being used in the cooling system. Use only those additives specified by GMH.

CAUTION: Never remove the pressure cap from the surge tank if the engine is hot. Scalding fluid and steam can be blown out under pressure if the cap is removed under these conditions.

If the cooling system should require topping up when the engine is hot, the following procedure must be followed if you are to avoid the risk of scalding:

Allow the engine to cool sufficiently then unscrew the pressure cap ¼ to ½ of a turn to release any residual pressure within the cooling system. When pressure is relieved, unscrew the cap completely. Add coolant as necessary to bring the level to just above the 'COLD' mark on the side of the tank.

When refitting the surge tank pressure cap, tighten the cap securely.

NOTE:

- If when checking the coolant level, the surge tank is observed to be completely empty, follow the refilling procedure described in the following section on "Coolant Replacement". This procedure is necessary to expel any air which may be trapped in the cooling system.
- If you regularly have to add coolant to the surge tank you should see your GMH Dealer for a cooling system check.

Coolant Replacement

To maintain the cooling system in good condition it is recommended that every 12 months or 20,000 km the coolant be replaced. This will ensure that the accumulation of scale and corrosion products is kept to a minimum thereby keeping the cooling system clean and operating efficiently.

Drain, flush and refill the cooling system as follows:—

1. When the engine and radiator are cool, loosen the surge tank cap.
2. To drain the coolant, disconnect the lower radiator hose from the radiator. (Refer to previous CAUTION regarding poisonous nature of coolant additives.)
3. When draining is completed, reconnect the lower radiator hose and refill with coolant according to the following procedure.

4. REFILLING: Add premixed coolant comprising clean water and corrosion inhibitor **or** anti-freeze fluid (refer specifications and concentrations given earlier in this section) filling to the 'COLD' mark on the surge tank.

   To release any air trapped in the system, remove the temperature gauge sender unit from the thermostat housing whilst filling. When coolant flows from the thermostat housing, replace the sender unit, ensuring that the thread is sealed with a suitable sealant.

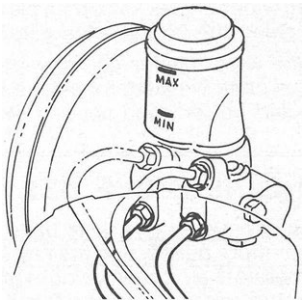
   If the sender cannot be removed, the system must be filled slowly till the surge bottle is filled. Wait at least five minutes, before topping up with coolant, to allow any trapped air to escape.

   Move the heater temperature control lever to 'HOT' (to allow coolant to flow through heater core) and then start the engine. Allow the engine to warm up to operating temperature and then top up the coolant level in the surge tank as required.

   NOTICE: To avoid engine overheating, the above refilling procedure must be followed so that any trapped air is expelled from the cooling system.

BRAKE FLUID LEVEL

The fluid level in the master cylinder should be checked regularly in conjunction with checking the oil and coolant levels. The fluid level visible through the 'see through' reservoir should be maintained between the MIN and MAX level markings. If the fluid is between these levels **do not** remove the master cylinder cap. Remember that brake fluid exposed to the atmosphere will quickly absorb moisture which in turn lowers the performance of the fluid as well as increasing risk of corrosion of brake components.



If the fluid level drops to 'MIN' or below, then you should top up to the 'MAX' mark with new brake fluid of the type specified in 'Specifications', Section 7 of this book.

NOTICE: Use only new brake fluid. Use of an old, used or inferior brake fluid may endanger the functioning of the brake system.

If the master cylinder requires regular topping up it indicates that there could be a malfunction within the brake hydraulic system in which case it should immediately be brought to the attention of your GMH Dealer. A gradual drop in fluid level usually occurs over a long period as the brake pads and linings wear out. This is normal.

Brake Fluid Replacement

At the intervals specified in the Maintenance Schedule, Section 6B, the brake hydraulic system **must** be drained, flushed and refilled with specified grade of brake fluid from a newly opened container.

WASHER RESERVOIR

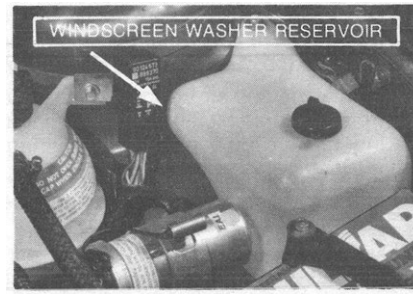
Fluid Level

WINDSCREEN WASHER — On all models, the windscreen washer reservoir is mounted in the engine compartment on the passenger's side, near the battery.

TAILGATE WASHER — On Wagon models, the tailgate washer reservoir is situated behind a removable panel in the rear compartment on the driver's side of the vehicle.

For best results, fill the reservoir(s) with a solution of water and AC Delco Optikleen Washer Solvent (Part No. M37933). Use at the concentration recommended on the package.

NOTICE: Do not operate the washer switch when the reservoir is empty and never operate the wiper on a dry screen. Failure to observe this warning could result in a scratched windscreen.



WINDSCREEN WIPER BLADES

The wiper blades should be cleaned regularly by lifting them off the windshield glass and washing the wiping edge carefully with warm water and a suitable detergent.

If the wiper blades do not wipe the windscreen clean after the blades and windscreen have been washed, renew the rubber element. In normal service, wiper blade elements should be replaced once or twice each year.

ENGINE DRIVE BELTS

The various engine drive belts should be kept at the correct tensions. A loose belt will wear more quickly and the resultant slipping does not allow the particular component viz; generator, air conditioning compressor or power steering pump, to perform correctly. Overtensioned belts can result in premature bearing failure in these components.

Inspection and adjustment of drive belts should be carried out at the intervals specified in the Maintenance Schedule or as required to maintain correct operation at all times. If you have any doubts about servicing the engine drive belts yourself then have it done by a GMH Dealer. He has the necessary equipment to correctly tension the drive belts.

AIR CLEANER

The air cleaner element is disposable and should be replaced as outlined in the Maintenance Plan. Do not wash or oil it or clean it with an air hose. If your vehicle operates in dusty conditions for any length of time the element should be replaced more often. Your GMH Dealer can advise you. When replacing the element, a genuine GMH replacement cleaner element is recommended.

When servicing the air cleaner on Electronic Fuel Injection engines:

— Handle air cleaner cover carefully (do not drop, hammer or immerse in water) as it contains the air flow meter.

— On reassembly, ensure the air flow meter wiring connection is reconnected properly and hose connections to the inlet duct are free of leaks as these items will affect air fuel ratio.

CAUTION: The air cleaner also functions as a flame arrestor in the event of engine backfire. The air cleaner should be installed at all times unless temporary removal is necessary for repair or maintenance. With the air cleaner removed, backfiring could cause fire in the engine compartment.

FUEL FILTER

The cartridge type fuel filters must be replaced at the intervals recommended in the Maintenance Plan. Ordinarily, replacement of the filter is not necessary before the recommended interval unless dirty fuel causes the element to clog.

All fuel filters (except EFI) are located in the engine compartment. The fuel filter on EFI engines is located on the underside of the vehicle near the fuel tank.

When replacing the fuel filter on EFI engines there are several precautionary measures which must be observed. A detailed procedure for fuel filter replacement on EFI engines is given in the Service Manual.

When replacing filters use only Genuine Replacement Parts.

EVAPORATIVE CONTROL SYSTEM

At the intervals specified in the Maintenance Schedule, in Section 6B, check all the fuel and vapour lines for condition, attachment and routing. The evaporative emissions canister should be checked for leaks and/or blockage following the procedure given in the relevant Service Manual.

SPARK PLUGS

To maintain efficient engine operation, control exhaust emissions and achieve optimum fuel economy the spark plugs must always be in good firing condition.

Spark plugs should be replaced at the intervals recommended in the Maintenance Schedule in Section 6B. More frequent maintenance or replacement may be required when operating conditions and/or fuel used causes plug fouling.

When replacements are needed, always use AC plugs of the type specified for your vehicle and set to the specified gap with a feeler gauge.

For spark plug and gap specifications refer to Section 7.

BATTERY (12 VOLT)

The battery which is located in the engine compartment just behind the left side headlamp, has its Negative (—) terminal 'grounded'.

NOTICE: Never disconnect the battery while the engine is running as this could cause damage to the vehicle's electrical components.

CAUTION: Follow the precautions listed in the 'jump starting' caution (see Section 3 of this manual) when working on or near a battery. Personal injury (particularly to the eyes) or property damage may result from battery explosion, battery acid or electrical (short circuit) burns.

Battery Maintenance

Care of your battery is very simple but extremely important. The battery installed in your vehicle will be either a 'Low Maintenance' type or a 'Maintenance Free' type.

Low Maintenance Battery — In normal service, check the electrolyte level at one month intervals. During hot weather, or if driving long distances at high speeds, check the electrolyte level more frequently.

The level can be checked using either of the following methods:

(A) Observe the level through the translucent battery case. The level should be maintained between the 2 lines marked on the case.

(B) Check the level in each cell by removing the screw caps. The maximum level is when the electrolyte is just touching the bottom of the vent tube. The minimum level is up to 5 mm below the vent tube.

Add only distilled water, as required, to maintain the level of electrolyte in each cell. DO NOT OVERFILL.

To clean any corrosive products from the outside of the battery, wash with a diluted ammonia or baking soda solution and then flush off with clean water. Take care to prevent neutralizing solution from entering any cells.

Battery terminals should be made shiny with a wire brush or abrasive paper. Cover the terminals and clamps with a thin coating of petroleum jelly to help retard corrosion.

Maintenance Free Battery — This type of battery is completely sealed except for some very small vent holes in its top. It has no filler caps and **never needs to be topped up.** Cleaning the battery case and terminals, if required, is the same as for the Low Maintenance Battery.

If your battery ever requires recharging it is recommended that you have this job done by a GMH Dealer or a qualified automotive technician. In other cases, refer to the service manual for your vehicle to obtain the correct recharging procedure.

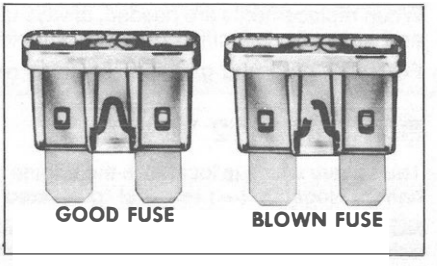
To meet your car's power requirements it is recommended that when you need to replace your battery, you choose an AC-Delco battery of the type which is specified for your vehicle. Refer to Section 7 for battery specifications.

FUSE SYSTEM

The fuse block is located behind a flush fitting plastic cover at the lower right hand corner of the instrument panel, adjacent to the hood release. To gain access to the fuses remove the cover by pulling it by the finger grip.

Fuses can be identified by referring to the fuse layout on the inside of the fuse box cover.

For identification of fuse box components also refer to 'Specifications' Section 7 of this handbook.



Fuses used are of the blade type with the amperage value of each fuse moulded into its head. To determine whether or not a fuse is 'blown', it is necessary to remove the suspect fuse and examine the element in the fuse. If the element is broken (see illustration), replace the fuse with one of the same amperage value.

If after replacing a burnt-out fuse, the new fuse also burns out, this indicates that the fuse is still overloaded. The cause of the fault should be located and rectified, preferably by a GMH Dealer.

CAUTION: When replacing a fuse be sure to use a fuse of the specified amperage. Never install a wire or similar device to replace a fuse as it could damage electrical components and may cause a fire hazard to the vehicle.

Fusible Link

The main wiring harnesses in your vehicle are protected from electrical overload by fusible links incorporated into the wiring system.

In case of a short circuit, the link will melt internally thus disconnecting the battery. The insulation encasing the fusible link is designed to withstand the extremely high temperatures generated in the fusing process thereby minimizing the risk of fire.

See your GMH Dealer if fusible link replacement becomes necessary.

BULB REPLACEMENT

Refer to 'Specifications' Section 7 of this handbook for correct specifications of replacement bulbs.

Headlights

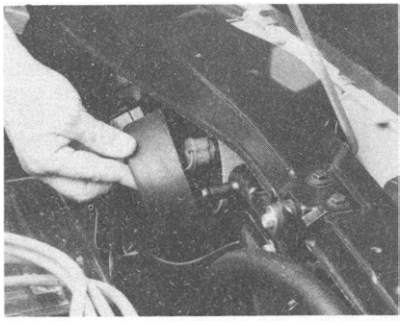
Access to headlight bulbs for replacement purposes is from within the engine compartment.

When servicing headlights do not touch bulbs or reflectors with bare hands. Greasy fingers will cause stains which evaporate — eventually resulting in a dull reflector. Grease spots and even finger marks on halogen-bulbs will lead to bulb failure within a short time.

Inadvertently stained bulbs may be cleaned with tissue paper, or a clean non-fuzzy cloth, using alcohol or white spirits.

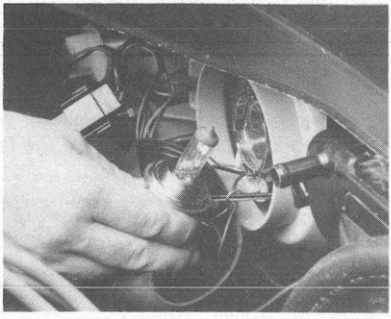
Headlight High/Low Beam

1. Remove protective rubber cover from rear of headlight.
2. Remove wiring connector from the back of the bulb.
3. Release spring clip which retains bulb in housing and withdraw bulb.
4. Insert new bulb so that the lugs on the bulb engage in the recesses in the bulb housing. Do not touch the glass of the new bulb as this drastically reduces bulb life.



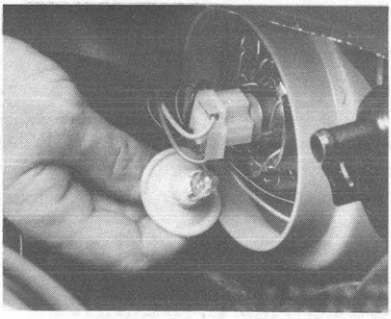
5. Proceed in reverse sequence to removal.
6. Re-aim headlights (headlight aim varies from bulb to bulb). Detailed procedures for headlight aiming are given in the relevant service manual for your car.

   However, because headlight aiming is a safety item it is recommended that you have it done by your GMH Dealer.



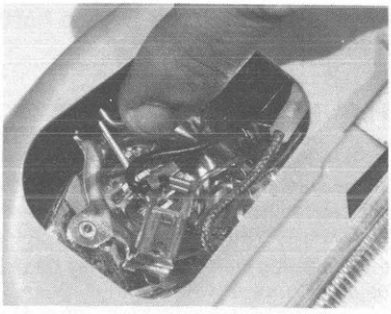
Parking Light

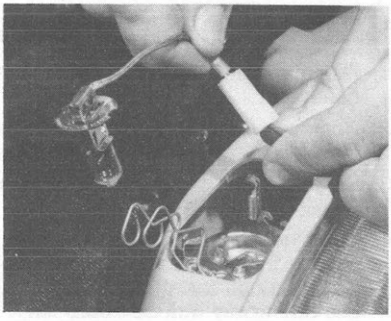
1. Remove protective rubber cover from rear of headlight.
2. Remove parking light bulb holder (located adjacent to headlight bulb) by pulling straight out of housing.
3. Remove parking light bulb by pulling straight out of holder.
4. Insert new bulb and proceed in reverse sequence to removal.



Headlight Driving, Inboard

1. Remove rubber cover located in top of headlight housing.
2. Release spring clip which retains bulb in housing.
3. Withdraw bulb and disconnect electrical connector.
4. Insert new bulb, reconnect electrical connector and proceed in reverse sequence to removal. Ensure that the rubber cover is replaced correctly to avoid water/dust entry into headlight.





Front Turn Signal Light

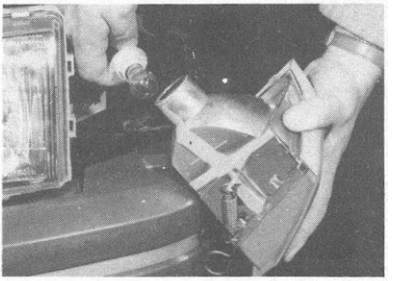
The bulb in this lamp can be replaced with the turn signal lamp assembly in its normal position (Method A) or detached from the headlight assembly (Method B).

Method A

1. Remove the bulb socket from rear of lamp housing by twisting the socket anticlockwise.
2. Lightly depress bulb and remove by twisting and then pulling out of socket.
3. Insert new bulb and reassemble in reverse sequence to removal.

Method B

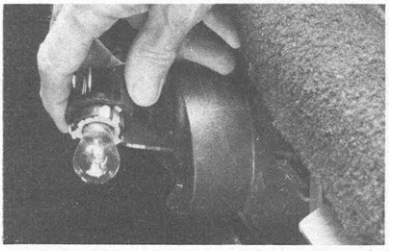
1. Release the turn signal lamp retaining spring which clips onto the rear of the headlight.
2. The turn signal lamp can now be detached from the headlight for easy access to the bulb socket.
3. Proceed as for Method A.

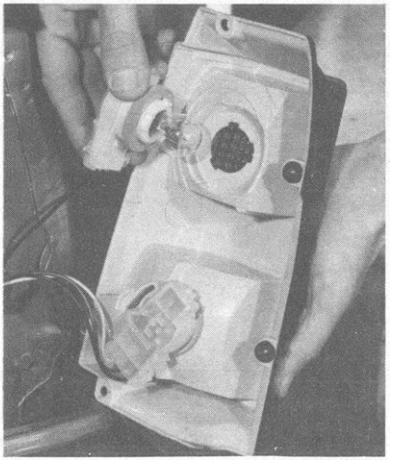


Rear Turn Signals, Stop and Tail Lights, Back-Up Lights — Sedan

1. To gain access to rear lamp assembly bulb, twist relevant bulb socket anti-clockwise and remove bulb socket from rear of lamp assembly. The bulb sequence is:
   Outboard — Turn signal
   Centre — Tail and stop
   Inboard — Reverse.
2. Replace bulb in socket.
3. The bulb socket is reinstalled by twisting to the right.

NOTE: To gain access to the rear lamp assembly on SL/E models the rear compartment moulded carpet has to be pulled back.



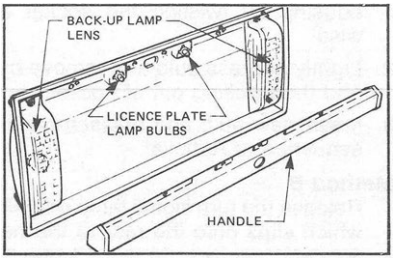


Rear Turn Signals, Stop and Tail Lights — Wagon

1. Remove four screws securing lamp to body and pull lamp out slightly.
2. Depress locking lever and remove relevant twist lock bulb socket from rear of lamp assembly by turning in the direction of the 'Remove' arrow.

3. Replace bulb.
4. Insert socket into lamp housing and turn in direction of 'Install' arrow until audible click is heard.
5. Reinstall lamp assembly.

Back-Up Lamp — Wagon

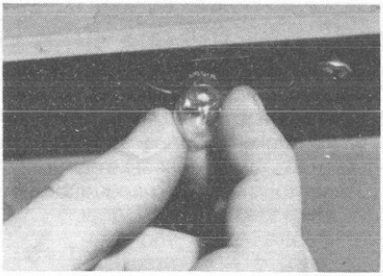


1. Remove tailgate handle.
2. Remove relevant lens taking care not to damage seal.
3. Replace bulb taking care not to touch reflective silver paint finish on lamp base.
4. Reinstall lens.
5. Reinstall tailgate handle.

Licence Plate Light — Wagon

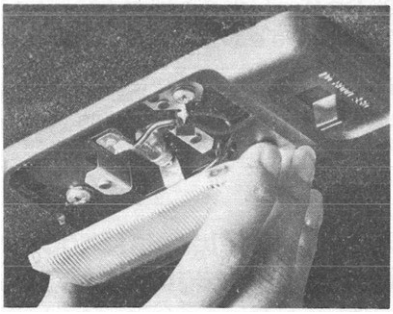
1. Remove tailgate handle.
2. Pull bulb(s) out of socket and replace with new bulb(s).
3. Reinstall tailgate handle.

Licence Plate Light — Sedan



1. Remove bulb by turning anticlockwise and then pulling out of socket.
2. Insert new bulb, depress and turn clockwise.

Interior Light



1. Carefully prise off the light cover using a screwdriver.
2. Lightly press bulb in the direction of the spring clip and remove.
3. Install new bulb.
4. Replace light cover.

Instrument Panel and Console Lamps

Replacement of these bulbs is recommended to be done only by a GMH Dealer or another competent person as all wiring and associated attachments are prone to damage if not serviced correctly.

TYRES

CAUTION: To reduce the risk of loss of vehicle control and personal injury:

- **The tyres must be properly inflated at all times.**
- **Your vehicle must not be overloaded.**
- **Ensure that your tyres are always in good condition, particularly when the vehicle is used for consistent high speed operation.**
- **Observe all other cautions and Safety Information contained in the rest of this 'Tyres' section.**

Vehicle Loading

Do not load your vehicle beyond the maximum rear axle loading or the maximum loaded vehicle mass specified for your model in Section 2 of this handbook.

Inflation Pressure

The cold inflation pressures listed on the Tyre Placard inside the glove box should be used for all vehicle loading conditions.

Incorrect tyre inflation pressures can have adverse effects on tyre life and vehicle performance. Too low an air pressure causes increased tyre flexing with subsequent heat build up. This weakens the tyre and increases the chance of damage or failure. It can result in tyre overloading, abnormal tyre wear, adverse vehicle handling, and increased fuel consumption.

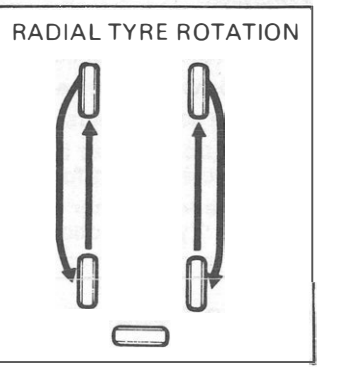
Too high an air pressure can result in abnormal wear and harsh ride.

Observe the following recommendations for checking and maintaining correct tyre inflation pressure:

1. Tyre pressures should be checked when the tyres are cold (when the vehicle has been standing for three hours or more or has been driven less than 2 kilometres).
2. Tyre inflation pressure may increase as much as 30 kPa (4 psi) or more when the tyres become hot from driving. DO NOT reduce pressures to compensate for this buildup. As a guide for checking warm/hot tyres under all conditions, allow pressure to read 10% above that recommended.
3. It is recommended that the pressures are checked at least weekly. For constant long distance or rough road travelling, daily checking is recommended.

   To maximise the protection of tyres on vehicles operating for prolonged periods over rough roads (particularly in outback conditions) it is recommended that the cold tyre inflation pressure recommended for high speed operation at maximum load condition as shown on the tyre placard is used.
4. Do not forget the spare tyre. It is advisable to maintain the spare at the maximum recommended tyre inflation pressure listed on the placard.
5. Always use a tyre pressure gauge when checking inflation pressures (we suggest you purchase a quality pocket-type gauge). Simply looking at the tyres to check inflation pressures is not enough, especially with radial tyres. If the inflation pressure on a tyre is often low have the fault rectified as soon as possible.
6. Be sure to put the valve dust caps or extensions back on, if so equipped. This will help keep dirt and moisture from getting into the valve core which could cause a leak.

Tyre Inspection and Rotation



Front and rear tyres perform different jobs and can wear differently depending on the types of roads driven, your driving habits, wheel alignment and balance, tyre pressures etc.

For longer tyre life, you should have the tyres inspected, and rotated if required, at the intervals specified in the GMH Maintenance Plan.

Your GMH Dealer will be able to diagnose any unusual signs of wear and can also balance the wheels and tyres for you. If the tyres are rotated, it is recommended that the balance be checked at the same time.

Refer to illustration for the preferred way of rotating your tyres. If no abnormal or uneven wear is evident, tyres need not be rotated.

Alignment and Balance

Improper wheel alignment can cause the tyres to wear faster and to wear unevenly. It can also cause the car to 'pull' to the left or right.

Out-of-balance wheels and tyres can cause annoying vibration and uneven tyre wear such as cupping and flat spots.

If you have any reason to suspect that either of the above problems exists then have a wheel alignment and balance check done by your dealer.

Tyre Repiacement and Repair

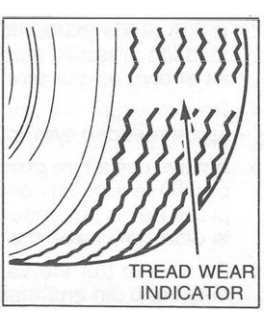
CAUTION: Do not mix different type construction types, such as radial and cross ply, on your vehicle because your car's handling could be affected and may result in loss of control.

When replacing tyres you should use the same size, load rating and construction type as the original tyres on your car. Refer to tyre placard inside glove box for tyre size and load rating. Using a different size or type of tyre may affect such things as ride, handling, speedometer/odometer calibration, vehicle ground clearance and tyre or tyre chain clearance to the body or chassis.

New tyres should be fitted in pairs to the front. If replacing only one tyre, it should be paired on the same axle with the least worn of the other three.

You should replace your tyres when:

1. The tyres are worn to the point where the tread indicators appear or the cord or fabric is showing. The original equipment tyres fitted to your vehicle incorporate built-in tread wear indicators which assist in determining when the tyres have worn to the point of needing replacement. (See illlustration) In the interests of safety, replacement should not be delayed.
2. The tread or sidewall is cut, split, or cracked deep enough to expose the cord or fabric.
3. The tyre has a bump or bulge in it, indicating some kind of internal damage.



4. The tyre has a puncture, cut or other damage which can't be repaired because of the size or location of the damage.

If in doubt about the extent of damage to the tyre have it removed from the wheel and examined by a tyre specialist.

If a pressure loss occurs while driving, do not attempt to drive on the deflated tyre more than is necessary to stop safely. Driving even a short distance on a deflated tyre can damage it and the wheel beyond repair.

When an object which has punctured the tyre is removed, repairs are to be made in accordance with the tyre manufacturer's recommendations.

CAUTION: Tyres which have been repaired will not be able to be operated safely at high speeds therefore their use is not recommended under these driving conditions.

Wheel Replacement

When replacing wheels for any reason, ensure that the new wheels are equivalent in diameter, rim width, offset and mounting configuration to those originally installed in your car.

NOTICE: The fitting of non-standard wheels to your vehicle is NOT recommended.

A wheel of the wrong size or type may adversely affect such things as front suspension geometry, wheel bearing life, brake cooling, clearance to the brake components, speedometer/odometer calibration, vehicle ground clearance and tyre or tyre chain clearance to the body.

Replacing your factory fitted wheels and tyres with non specified wheels and tyres may void your New Vehicle Warranty as well as your motor vehicle insurance policy.

Tyre Traction

CAUTION: A decrease in driving, cornering and braking traction occurs when water, snow, ice, gravel or other material is on the road surface. Driving practices and vehicle speed should be adjusted to the road conditions.

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tyre and road surface. This phenomenon, known as hydro-planing, may cause partial or complete loss of traction, which adversely affects vehicle control and stopping ability. To reduce the possibility of traction loss, the following precautions should be observed.

1. Reduce speed levels during rainstorms or when roads are slushy and if the road has standing water or puddles.
2. Replace tyres when tread wear indicators are visible.
3. Check that tyres are properly inflated for speed range and vehicle loading.

COMPRESSION TESTING EFI ENGINES

When carrying out compression tests or whenever cranking the engine with the spark plug(s) removed you should always disconnect the electrical plug from the base of the fuel injection relay located on the passenger side suspension tower. (Refer to Service Manual for location.)

This is done to prevent fuel from being automatically injected into the cylinder while cranking.

SECTION 6B GMH MAINTENANCE PLAN AND SERVICE COUPONS

This section contains all the 'Owner Inspections and Services' and 'Scheduled Maintenance Services' which are considered necessary for your vehicle. Safety, economy, emission control, performance and reliability cannot be assured unless regular maintenance is performed, preferably by factory-trained technicians.

OWNER'S RESPONSIBILITY — PLEASE READ CAREFULLY

It is the owner's responsibility to ensure that all routine and scheduled maintenance services described in this section are carried out at the recommended intervals.

The recommended intervals are only for vehicles subject to normal operating conditions. Vehicles subject to extreme operating conditions will need more frequent servicing on some items as described under "Vehicle Operating Conditions" later in this section.

NOTE: All maintenance services as listed in this handbook and replacement of service items, are the responsibility of the owner and as such are NOT considered, under the provisions of the New Vehicle Warranty to be rectification of defects in material and workmanship. Items such as wheel alignment, necessary adjustments to drive belts, transmission, clutch, parking brake etc. or any other items which may require servicing due to fair wear and tear, will be carried out at the owner's cost.

Failure to have proper maintenance services carried out by an Authorised GMH Dealer or Service Dealer may void your new vehicle warranty.

It is strongly recommended that you read the "New Vehicle Warranty" at the front of this handbook, so that you are conversant with your entitlements.

OWNER INSPECTIONS AND SERVICES

Listed below are vehicle inspections and services which should be performed by either you or a qualified technician at the frequencies indicated to help ensure proper safety and dependability of your vehicle. Take any problems promptly to your dealer or a qualified technician for service advice. Whenever repairs are necessary, have them completed at once. For your safety and that of others, any safety-related components that could have been damaged in an accident should be inspected. All needed repairs should be performed before operating your vehicle.

FREQUENCY	INSPECTION OR SERVICE	WHAT TO DO
BEFORE OPERATING YOUR CAR	Glass, mirrors, light and reflector condition	Look for broken, scratched, dirty or damaged glass, mirror, light or reflector that could reduce vision or visibility or cause injury. Replace, clean or repair promptly.
	Seat adjuster operation	When adjusting seat position, be sure seat adjusters latch by pushing seat forward and backward.
	Rearview mirror and sun visor operation.	Make sure friction joints hold mirrors and sun visors in place.
	Door, luggage compartment lid and wagon tailgate operation.	Make sure that all doors, luggage compartment lid or wagon tailgate close, latch and lock tightly.
	Warning lights and instruments.	Check operation of all warning lights and instruments. See Section 1E for details.
WHILE OPERATING YOUR CAR	Automatic transmission shift indicator operation.	Make sure the indicator points to the gear chosen.
	Wiper and washer operation	Note the operation and condition of the wiper blades and the flow and aim of the washer spray. This includes the rear window wiper and washer if so equipped.
	Ventilation, Heating and/or Air Conditioning System operation	Check that system operates as described in Section 1E. Pay particular attention to windscreen demisting operation.
	Horn Operation	Blow the horn occasionally to make sure it works.
	Brake system operation	Be alert to abnormal sounds, increased brake pedal travel or repeated pulling to one side when braking. Also, if the brake warning light comes on, something may be wrong. See "Brake Warning Light" in Section 1E.

FREQUENCY	INSPECTION OR SERVICE	WHAT TO DO
	Exhaust system operation	Be alert to any changes in the sound of the system or any smell of fumes. These are signs the system may be leaking or overheating. Have it inspected and repaired at once. Also see "Engine Exhaust Gas Caution (Carbon Monoxide)" in Section 2.
	Tyres, Wheels and Alignment	Be alert to a vibration of the steering wheel or seat at normal highway speeds. This may mean a wheel balance is needed. Also, a pull right or left on a straight, level road may show the need for a tyre pressure adjustment or wheel alignment.
	Steering system operation	Be alert to changes in steering action. An inspection is needed when the steering wheel is harder to turn or has too much free play or if unusual sounds are noted when turning or parking.
	Headlight aim	Take note of light pattern occasionally. If beams seem improperly aimed, or if oncoming cars frequently flash their headlights at you, have your headlight aim checked.
AT REFUELLING STOPS	Engine oil level†	Check level and add if necessary. See Section 6A for details.
	Engine coolant level†	Check level in surge tank. Add specified coolant as required. See Section 6A for details.
	Brake master cylinder reservoir level†	Check fluid level. Note: A low fluid level can indicate worn disc brake pads and these should be checked.
	Automatic transmission fluid level†	Maintain level within operating range on dipstick.
	Power steering system level†	Maintain level in accordance with instructions given in Section 6A.
	Battery electrolyte level	Check level and add if necessary. If your vehicle is fitted with a 'Maintenance Free' battery you do not have to check electrolyte level. See Section 6A.
	Windshield washer fluid level	Check level in container and add if necessary.

FREQUENCY	INSPECTION OR SERVICE	WHAT TO DO
	Hood latch operation	When operating hood note the operation of secondary latch. It should keep hood from opening all the way when primary latch is released. Make sure that hood closes firmly after services are performed.
	Tyre pressures	Maintain pressures as shown on the tyre placard located in the glove compartment. Don't forget the spare! Pressures should be checked when tyres are cold.
	†**NOTE:** A large loss in these systems may indicate a problem. Have them inspected and repaired at once. — Topping up is required when fluid levels fall to the "add" or minimum markings. — Use only the specified lubricants and fluids. See Section 7 'specifications'.	
AT LEAST MONTHLY	Tyre and wheel inspection	Check tyres for abnormal wear or damage. Also check for damaged wheels. Replace as necessary. Abnormal tyre wear (front) indicates a wheel alignment may be required.
	Light operation	Check operation of license plate light, headlights including high beams, parking lights, taillights, brake lights, turn signals, backup lights and hazard warning flashers.
	Fluid leak checks	Periodically, after the car has been parked for a while, inspect the surface beneath the car for water, oil, fuel or other fluids. Water dripping from the air conditioning system after use is normal. If you notice fuel leaks or fumes, the cause should be found and corrected at once.
	Seat belts condition and operation	Inspect belt system, including webbing condition, buckle operation, retractor operation and anchor security.

VEHICLE OPERATING CONDITIONS

The frequency with which your vehicle requires maintenance servicing depends upon what type of conditions it is operated under:

Normal Conditions

The maintenance instructions contained in this handbook are based on the assumption that your car will be used as designed in accordance with the operating instructions given in this handbook:

— To carry passengers and cargo within the vehicle and rear axle loading limits as specified in Section 2 of this handbook.
— On reasonable road surfaces within legal operating limits.
— On a daily basis, as a general rule, for at least several kilometres and,
— On correct grade fuel.

Extreme Conditions

If your vehicle operates under any of the extreme conditions listed below, it is recommended that some items be serviced more frequently than the intervals specified in the Maintenance Schedule.

EXTREME OPERATING CONDITIONS:

1: Dust, dirt or loose road material.
2: Muddy and wet areas.
3: Cold weather (below 5°C) and when most trips are less than 5 km.
4: Stop-start, excessive idling or low speed operation as experienced in inner city driving, e.g. taxi, door to door delivery vehicles.
5: Caravan or trailer towing.

Item	Extreme Operating Conditions	"Suggested" Service Intervals for Continuous Operation Under Extreme Conditions
Engine Oil	1-3-4-5	Change @ 5,000 km
Engine Oil Filter	1	Replace @ 5,000 km
Engine Air Cleaner Element	1	Replace @ 20,000 km
Automatic Transaxle Fluid	5	Change @ 20,000 km
All Suspension and Steering Components and Driveshafts	1-2	Inspect for damaged, loose or missing parts @ 5,000 km
Brake Clutch and Fuel Lines, Exhaust System	1-2	Inspect for proper attachment, leaks, cracks, chafing, abrasion or other deterioration @ 5,000 km
Rear Drum Brakes	1-2-4	Remove drums, clean and inspect @ 10,000 km

The extra services listed above should only be used continuously if your vehicle operates continuously under the conditions specified.

If you operate under any of these conditions on a one off basis e.g. holiday trip, then the extra service should be for that period only.

If at any time it is considered that the above items or other items should be more frequently serviced due to the type of operation or before a long trip, discuss the situation with the Service Manager of your GMH Dealership.

Extreme Corrosive Conditions

Vehicles used under conditions exposing them to corrosive materials such as boat launching, driving along beaches, driving on tracks through fertilized paddocks, etc. — must be thoroughly flushed with fresh water immediately after such use to remove any deposited corrosive material.

SERVICE COUPON SYSTEM

The remainder of this section contains a separate coupon for each of the scheduled maintenance services recommended for vehicles operating under normal conditions. Printed on each coupon is a list of all the items requiring attention for that particular service. As each service is performed and the coupon removed, the following service coupon is readily visible to remind you when the next service is due.

What The Owner Should Do

When service, according to the time or distance interval, is due, the owner should present this Owner Handbook to a GMH Dealer as an authority to have the items listed attended to. Any additional services required should be noted on the front of the coupon and then signed by you as authorisation to carry out the service.

After the service is completed, the owner should see that the Validation Record is stamped and signed by the Dealer. This is important as it will not only assist in the determination of Warranty Claims, but enhance the value of the vehicle whenever resale is contemplated.

What The Servicing Dealer Has To Do

Your Service Dealer must attend to all items listed for the particular service and must see that the Validation Record is signed.

All operations listed on the Service Coupons should be carried out following the procedures set out in the appropriate current service literature.

Total Maintenance Programme

Service Coupons provided in this handbook range from the Pre-Delivery Service on your new vehicle right through to the 125,000 km (75 month) service. The sequence of services is as follows:

- Pre Delivery Service

NOTE: All the following services are to be performed at the specified Distance or Months, whichever occurs first.

- 1,500 km — 1 Month
- 5,000 km — 3 Months
- 15,000 km — 9 Months
- 25,000 km — 15 Months
- 35,000 km — 21 Months
- 45,000 km — 27 Months
- 55,000 km — 33 Months
- 65,000 km — 39 Months
- 75,000 km — 45 Months
- 85,000 km — 51 Months
- 95,000 km — 57 Months
- 105,000 km — 63 Months
- 115,000 km — 69 Months
- 125,000 km — 75 Months

The one month — 1,500 kilometres service will be performed without cost for labour by the Selling Dealer.

NOTE:
This service may be carried out by another GMH Dealer provided you have a letter of Introduction from the Selling Dealer. Your Dealer will supply the necessary letter of Introduction upon request.

The services shown in this schedule between 15,000 km and 125,000 km are to be performed after 125,000 km at the same intervals.

MAINTENANCE SCHEDULE

This schedule is based on Normal Operating Conditions.

If your vehicle operates in Extreme Conditions those items marked ★ will need servicing more frequently. Refer 'Vehicle Operating Conditions' in this section.

SERVICE INTERVAL (use odometer reading or months whichever occurs first)	x 1000 km	5	15	25	35	45	55	65	75	85	95	105	115	125
	or months	3	9	15	21	27	33	39	45	51	57	63	69	75
UNDERHOOD OPERATIONS														
Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.		x	x	x	x	x	x	x	x	x	x	x	x	x
Check condition and tension of all engine drive belts using gauge. Adjust if necessary.		-	x	-	x	-	x	-	x	-	x	-	x	-
Check condition and tension of camshaft drive belt.		-	-	-	-	x	-	-	-	x	-	-	-	x
Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.		-	x	x	x	x	x	x	x	x	x	x	x	x
Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).		-	x	x	x	x	x	x	x	x	x	x	x	x
Drain, flush and refill cooling system with premixed coolant comprising water and recommended inhibitor. Inspect hoses and clamps. Clean outside of radiator and A/C condensor (where fitted).		-	x	-	x	-	x	-	x	-	x	-	x	-
Pressure test cooling system and surge tank cap. Check for leaks.		x	x	x	x	x	x	x	x	x	x	x	x	x
Air conditioning — check refrigerant charge at sight glass.		-	x	-	x	-	x	-	x	-	x	-	x	-
Lubricate clutch cable to fork lever pivot.		-	-	x	-	x	-	x	-	x	-	x	-	x
Lubricate auto transaxle control cable pivots.		-	-	x	-	x	-	x	-	x	-	x	-	x
Lubricate throttle linkage.		-	x	-	x	-	x	-	x	-	x	-	x	-
Check operation of engine cooling fan.		-	x	x	x	x	x	x	x	x	x	x	x	x
Check air pre heat control damper assembly for correct cold and hot operation (except EFI).		-	x	-	x	-	x	-	x	-	x	-	x	-
Check operation of automatic choke (except EFI).		-	x	-	x	-	x	-	x	-	x	-	x	-
Check operation of idle load compensator and adjust if necessary (except EFI).		-	x	-	x	-	x	-	x	-	x	-	x	-
Check engine ventilation idle metering orifice for restriction (except EFI).		-	-	-	x	-	-	-	x	-	-	-	x	-
Check operation of EGR valve.		-	x	-	x	-	x	-	x	-	x	-	x	-
Clean EGR valve and manifold opening.		-	-	-	x	-	-	-	x	-	-	-	x	-
Remove throttle body, clean throttle blade and bore of body (EFI only).		-	-	-	x	-	-	-	x	-	-	-	x	-
Check operation of auxiliary air valve, auxiliary air valve switch and vacuum limiter valve (EFI only).		-	x	-	x	-	x	-	x	-	x	-	x	-
Replace engine air cleaner element. ★		-	-	-	x	-	-	-	x	-	-	-	x	-

SERVICE INTERVAL (Use odometer reading or months whichever occurs first)	x 1000 km	5	15	25	35	45	55	65	75	85	95	105	115	125
	or months	3	9	15	21	27	33	39	45	51	57	63	69	75
Replace in line fuel filter (1.6 S engine).		-	-	-	x	-	-	-	x	-	-	-	x	-
Replace spark plugs, check resistance of plug leads. Inspect condition of distributor cap and rotor.		-	x	-	x	-	x	-	x	-	x	-	x	-
Check ignition timing.		-	x	-	x	-	x	-	x	-	x	-	x	-
Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).		x	x	-	x	-	x	-	x	-	x	-	x	-
Check engine idle speed and adjust if necessary (EFI only).		x	x	-	x	-	x	-	x	-	x	-	x	-
Check evaporative emission canister for air leaks and/or restriction to air flow through the ports.		-	-	-	x	-	-	-	x	-	-	-	x	-
UNDER VEHICLE OPERATIONS														
Change engine oil. ★		x	x	x	x	x	x	x	x	x	x	x	x	x
Change oil filter. ★		x	x	x	x	x	x	x	x	x	x	x	x	x
Replace in-line fuel filter (1.8 E engine).		-	-	-	x	-	-	-	x	-	-	-	x	-
Manual transaxle. Check oil level.		-	x	x	x	x	x	x	x	x	x	x	x	x
Manual transaxle. Change oil.		-	x	-	-	-	x	-	-	-	x	-	-	-
Automatic transaxle. Drain fluid, replace filter, refill with specified fluid. ★		-	-	-	x	-	-	-	x	-	-	-	x	-
Lubricate front suspension control arm ball joints. ★		-	-	x	-	x	-	x	-	x	-	x	-	x
Check all brake and fuel pipes, hoses and connections for condition, leaks and proper attachment. Correct as required.		-	x	x	x	x	x	x	x	x	x	x	x	x
Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage. ★		-	x	x	x	x	x	x	x	x	x	x	x	x
Check driveshaft CV joint boots for proper attachment, condition and grease loss.		-	x	x	x	x	x	x	x	x	x	x	x	x
Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.		-	x	x	x	x	x	x	x	x	x	x	x	x
Check front disc brake pads for condition and wear (with road wheels removed).		-	x	x	x	x	x	x	x	x	x	x	x	x
Remove rear brake drums. Check linings and drums for condition and wear. Check operation of self adjusting mechanism. Inspect wheel cylinders for leakage. ★		-	-	x	-	x	-	x	-	x	-	x	-	x
Inspect, repack and adjust rear wheel bearings.		-	-	-	x	-	-	-	x	-	-	-	x	-
Hydraulic brake system — drain and refill with specified fluid from freshly opened container. Bleed system and check brake performance on road test.		-	-	x	-	x	-	x	-	x	-	x	-	x
Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.		x	x	x	x	x	x	x	x	x	x	x	x	x

SERVICE INTERVAL (Use odometer reading or months whichever occurs first)	x 1000 km	5	15	25	35	45	55	65	75	85	95	105	115	125
	or months	3	9	15	21	27	33	39	45	51	57	63	69	75
INTERIOR VEHICLE OPERATIONS														
Check operation of all lights (interior and exterior).		-	x	x	x	x	x	x	x	x	x	x	x	x
Check park brake operation. Adjust if necessary.		-	x	x	x	x	x	x	x	x	x	x	x	x
Check clutch pedal height. Adjust if necessary.		-	x	x	x	x	x	x	x	x	x	x	x	x
Lubricate clutch pedal to cable connection.		-	x	-	x	-	x	-	x	-	x	-	x	-
Seat belt inspection — examine webbing condition, buckle operation, retractor mechanism operation, and anchor security. Report any deficiencies.		-	x	-	x	-	x	-	x	-	x	-	x	-
EXTERIOR VEHICLE OPERATIONS														
Lubricate all locks, exterior door handle pivots, door and rear compartment strikers and hold open devices. Check operation and lubricate hood lock and catch.		-	x	-	x	-	x	-	x	-	x	-	x	-
ROAD TEST														
Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.		x	x	x	x	x	x	x	x	x	x	x	x	x
Suggested Labour Time — Hours		0.7	2.2	1.3	2.8	1.4	2.2	1.3	2.8	1.4	2.2	1.3	2.8	1.4
Extra Labour Time for:														
Automatic Transmission		-	-	-	0.3	-	-	-	0.3	-	-	-	0.3	-
EFI		-	-	-	0.2	-	-	-	0.2	-	-	-	0.2	-

Additions to Basic Service

Additional time and material required for servicing equipment other than that fitted to a base model vehicle (viz: 1.6 L engine, manual transmission) and repairing or replacing any part found faulty during the service check and inspection, will be added to the Suggested Labour Time and charges.

Where any deficiencies are noted, such items should be reported to the owner/operator so that the extra work required can be authorised.

Pre-Delivery Operations

Check and adjust or correct if necessary, the following items:

GMH QUALITY SERVICE & PARTS

UNDERHOOD OPERATIONS

	Check all fluid levels viz; engine oil, brake fluid, windscreen washer, battery electrolyte, automatic transaxle, power steering and engine coolant. Top up as required with specified fluid.
	Check condition, attachment and routing of all hoses and pipes in engine compartment: includes brake, coolant, fuel, power steering, emission control and air conditioning systems.
	Check battery earth and harness earth connections to engine and frame for security. Check battery terminals are tight on battery posts.
	Check refrigerant charge at sight glass.
	Check operation of cooling fan(s).

UNDER VEHICLE OPERATIONS

	Check oil level in manual transaxle.
	Check for oil, fuel, water and exhaust leaks.
	Check drive shaft CV joint boots are correctly installed. Check for grease loss or damage.
	Check brake lines, hoses and connections for condition, attachment and routing.
	Check exhaust system for condition, attachment and alignment.
	Check fuel and vapour lines, hoses and connections for condition, attachment and routing.
	Check steering system for damaged or loose components.
	Check front and rear suspension for damaged or loose components.
	Inspect tyres and inflate to recommended pressures.
	Tighten wheel bolts to specified torque.
	Check front wheel toe, adjust if necessary.

INTERIOR VEHICLE OPERATIONS

	Check park brake operation, adjust if necessary.
	Check clutch pedal height, adjust if necessary.
	Check operation of all vehicle controls, including door, rear compartment and window mechanisms, warning indicators, switches, ignition steering lock, electrical systems, hood lock and catch.
	Check operation of all interior and exterior lights.
	Check that heating, ventilation, demisting and air conditioning systems operate correctly and controls are correctly adjusted. Check that blower operates on each speed setting.
	Examine seat belts, examine webbing, buckle and retractor mechanism operation, report any deficiency.
	Inspect body trim and floor coverings.
	Clean vehicle interior thoroughly.
	Check tool, jack and spare wheel stowage.
	Check front seats fore and aft adjustment.
	Check wagon rear seat operation.
	Check vertical height seat adjuster operation.

EXTERIOR VEHICLE OPERATIONS

	Wash vehicle, check paintwork, brush touch-up and minor repairs as necessary.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response. Correct and report abnormal conditions.
	Check for squeaks, rattles, wind noise and powertrain noise.
	Vehicles fitted with Automatic Transaxle — check shift pattern. Manual Transaxle — check gearshift operation.
	Check park pawl operation (auto).
	Check neutral start switch operation (auto).
	Check steering wheel spoke position.

Your new vehicle has been inspected and prepared for delivery by your Dealer, in accordance with the manufacturer's New Vehicle Pre-Delivery Procedures.

Service Manager's Signature .....

Date .....

NEW VEHICLE PRE DELIVERY VALIDATION

Delivery Certificate

- ☐ The dealer has completed the Vehicle Identification Certificate (Inside Front Cover).
- ☐ The dealer has explained to the purchaser:
  - — the terms and conditions of the General Motors-Holden's Sales Pty. Ltd., New Vehicle Warranty and Notices.
  - — the contents of the Owner's Handbook
  - — the purchaser's responsibility in respect of vehicle maintenance.
- ☐ The dealer has demonstrated to the purchaser the operation of the vehicle and of all options and accessories including a road test of the vehicle.
- ☐ The purchaser has been informed in writing of the fitting of any and all equipment or accessories not marketed by GMH or an affiliated company, and of any alterations or modifications which have been made to the vehicle and the effect on the GMH Sales Pty. Ltd. New Vehicle Warranty of such fitting, alteration or modification.
- ☐ The purchaser has inspected the vehicle and acknowledges its delivery in accordance with this delivery procedure.

Purchaser's Signature ..... Date .....

Delivered by: Signature ..... Date .....

Owner's Name Mr. Mrs. Miss .....

Address .....

Town & State ..... Postcode .....

Reg. No. ..... Model Name .....

V.I.N. ..... Eng. No. .....

1500 Kilometre or 1 Month Inspection and Adjustment

GMH QUALITY SERVICE & PARTS

This coupon should not be removed until the vehicle is presented for service.

Owner's Name Mr. Mrs. Miss .....

Address .....

Town & State ..... Postcode .....

Reg. No. ..... Model Name .....

V.I.N. ..... Eng. No. .....

Selling Dealer's Stamp & Signature .....

Date of Purchase .....

This vehicle has been thoroughly checked in accordance with the schedule on the reverse side of this coupon.

Servicing Dealer's Stamp & Signature .....

Town ..... State .....

Owner's Signature. .....

This Inspection & Adjustment will be carried out without charge to the owner except for any lubricants used.

The Designated Services are not to be exceeded without the Owner's prior agreement to additional servicing charges.

This vehicle has been thoroughly checked in accordance with the **1,500** kilometre inspection and adjustment.

Dealer .....

Service Manager's Signature .....

Date ..... Odometer Reading .....

1500 Kilometre 1 Month Inspection and Adjustment

UNDER HOOD OPERATIONS

	Check all fluid levels viz: Engine oil, brake fluid, coolant, windscreen washer, battery, auto.trans-axle, power steering. Top up as required with specified fluid.
	Check condition and tension of drive belts for alternator, power steering and A/C compressor using gauge. Adjust if necessary.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Pressure test cooling system and surge tank cap. Check for leaks.
	Check refrigerant charge at sight glass.
	Check air preheat control damper assembly for correct cold and hot operation (except EFI).
	Check operation of automatic choke (except EFI).
	Check operation of idle load compensator and adjust if necessary (except EFI)
	Check operation of auxiliary air valve, auxiliary air valve switch and vacuum limiter valve (EFI only).
	Check ignition timing.
	Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).
	Check engine idle speed and adjust if necessary (EFI only).

UNDER VEHICLE OPERATIONS

	Manual transmission. Check oil level. Inspect for leaks.
	Lubricate front suspension control arm ball joints.
	Check all brake and fuel lines, hoses and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check drive shaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Correct as required. Also, inspect the underbody for damage or any other condition which would allow exhaust system fumes to seep into the passenger compartment.
	Inspect tyres for irreguiar wear or damage. Aiso check for damaged wheeis and advise owner of any corrective maintenance required. Check tyre inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check operation of all instruments and controls including ignition steering lock, indicator and warning lights, horn, wiper/washer, turn signals, hood lock and catch. Check operation of door, rear compartment and window mechanisms.
	Check that heating, ventilation, demisting and air conditioning systems operate correctly. Check that blower operates on each speed setting.

EXTERIOR VEHICLE OPERATIONS

	Check headlamp aim and adjust if necessary.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto). Check neutral start switch (auto). Correct and report any abnormal conditions.

5,000 km or 3 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 0.7 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Pressure test cooling system and surge tank cap. Check for leaks.
	Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).
	Check engine idle speed and adjust if necessary (EFI only).

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional Services Performed: .....

Servicing Dealer .....

Signed .....

Date ..... Odometer .....

5,000 km or 3 Month SERVICE VALIDATION

15,000 km or 9 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.2 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of all engine drive belts using gauge. Adjust if necessary.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Drain, flush and refill cooling system with premixed coolant comprising water and recommended inhibitor. Inspect hoses and clamps. Clean outside of radiator and A/C condensor (where fitted).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Air conditioning — check refrigerant charge at sight glass.
	Lubricate throttle linkage.
	Check operation of engine cooling fan.
	Check air pre heat control damper assembly for correct cold and hot operation (except EFI).
	Check operation of automatic choke (except EFI).
	Check operation of idle load compensator and adjust if necessary (except EFI).
	Check operation of EGR valve.
	Check operation of auxiliary air valve, auxiliary air valve switch and vacuum limiter valve (EFI only).
	Replace spark plugs, check resistance of plug leads. Inspect condition of distributor cap and rotor.
	Check ignition timing.
	Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).
	Check engine idle speed and adjust if necessary (EFI only).

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.

15,000 km or 9 Month SERVICE VALIDATION

Servicing Dealer . . . . . .

Signed . . . . . .

Date . . . . . Odometer . . . . . .

Additional Services Performed: . . . . . .

	Manual transaxle. Change oil.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check drive shaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Hydraulic brake system — drain and refill with specified fluid from freshly opened container. Bleed system and check brake performance on road test.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.
	Lubricate clutch pedal to cable connection.
	Seat belt inspection — check webbing condition, buckle operation, retractor mechanism operation and anchor security. Report any deficiencies.

EXTERIOR VEHICLE OPERATIONS

	Lubricate all locks, exterior door handle pivots, door and rear compartment strikers and hold open devices. Check operation and lubricate hood lock and catch.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

25,000 km or 15 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Lubricate clutch cable to fork lever pivot.
	Lubricate auto transaxle control cable pivots.
	Check operation of engine cooling fan.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Manual transaxle. Check oil level.
	Lubricate front suspension control arm ball joints.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check drive shaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Remove rear brake drums. Check linings and drums for condition and wear. Check operation of self adjusting mechanism. Inspect wheel cylinders for leakage.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel nuts.

Additional Services Performed: . . . . . .

25,000 km or 15 Month SERVICE VALIDATION

Servicing Dealer . . . . . .

Signed . . . . . Odometer . . . . . .

Date . . . . . .

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

35,000 km or 21 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.8 hrs.

[Add 0.3 hr for Automatic Transmission.
0.2 hr for EFI.]

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of all engine drive belts using gauge. Adjust if necessary.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Drain, flush and refill cooling system with premixed coolant comprising water and recommended inhibitor. Inspect hoses and clamps. Clean outside of radiator and A/C condensor (where fitted).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Air conditioning — check refrigerant charge at sight glass.
	Lubricate throttle linkage.
	Check operation of engine cooling fan.
	Check air preheat control damper assembly for correct cold and hot operation (except EFI).
	Check operation of automatic choke (except EFI).
	Check operation of idle load compensator and adjust if necessary (except EFI).
	Check engine ventilation idle metering orifice for restriction (except EFI).
	Check operation of EGR valve.
	Clean EGR valve and manifold opening.
	Remove throttle body, clean throttle blade and bore of body (EFI only).
	Check operation of auxiliary air valve, auxiliary air valve switch and vacuum limiter valve (EFI only).
	Replace engine air cleaner element.
	Replace in-line fuel filter (1.6 S engine).
	Replace spark plugs. Check resistance of plug leads. Inspect condition of distributor cap and rotor.

35,000 km or 21 Month SERVICE VALIDATION

Servicing Dealer . . . . . Additional Services Performed: . . . . . .

Signed . . . . . Odometer . . . . . .

Date . . . . . .

	Check ignition timing.
	Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).
	Check engine idle speed and adjust if necessary (EFI only).
	Check evaporative emission canister for air leaks and/or restriction to air flow through the ports.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Replace in-line fuel filter (1.8 E engine).
	Manual transaxle. Check oil level.
	Auto transaxle. Drain fluid, replace filter, refill with specified fluid.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check driveshaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Inspect, repack and adjust rear wheel bearings.
	Hydraulic brake system — drain and refill with specified fluid from freshly opened container. Bleed system and check brake performance on road test.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.
	Lubricate clutch pedal to cable connection.
	Seat belt inspection — check webbing condition, buckle operation, retractor mechanism operation and anchor security. Report any deficiencies.

EXTERIOR VEHICLE OPERATIONS

	Lubricate all locks, exterior door handle pivots, door and rear compartment strikers and hold open devices. Check operation and lubricate hood lock and catch.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

45,000 km or 27 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.4 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of camshaft drive belt.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Lubricate clutch cable to fork lever pivot.
	Lubricate auto transaxle control cable pivots.
	Check operation of engine cooling fan.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Manual transaxle. Check oil level.
	Lubricate front suspension control arm ball joints.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check driveshaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Remove rear brake drums. Check linings and drums for condition and wear. Check operation of self adjusting mechanism. Inspect wheel cylinders for leakage.

Additional Services Performed: . . . . . .

Servicing Dealer . . . . . .

Signed . . . . . Odometer . . . . . .

Date . . . . . .

45,000 km or 27 Month SERVICE VALIDATION

	Manual transaxle. Change oil.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check drive shaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Hydraulic brake system — drain and refill with specified fluid from freshly opened container. Bleed system and check brake performance on road test.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.
	Lubricate clutch pedal to cable connection.
	Seat belt inspection — check webbing condition, buckle operation, retractor mechanism operation and anchor security. Report any deficiencies.

EXTERIOR VEHICLE OPERATIONS

	Lubricate all locks, exterior door handle pivots, door and rear compartment strikers and hold open devices. Check operation and lubricate hood lock and catch.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

65,000 km or 39 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Lubricate clutch cable to fork lever pivot.
	Lubricate auto transaxle control cable pivots.
	Check operation of engine cooling fan.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Manual transaxle. Check oil level.
	Lubricate front suspension control arm ball joints.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check drive shaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Remove rear brake drums. Check linings and drums for condition and wear. Check operation of self adjusting mechanism. Inspect wheel cylinders for leakage.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel nuts.

Additional Services Performed: . . . . . .

65,000 km or 39 Month SERVICE VALIDATION

Servicing Dealer . . . . . .

Signed . . . . . Odometer . . . . . .

Date . . . . . .

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

75,000 km or 45 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.8 hrs.

[Add 0.3 hr for Automatic Transmission.
0.2 hr for EFI.]

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

Additional Services Performed: . . . . . Odometer . . . . . Date . . . . . Signed . . . . . Servicing Dealer . . . . .

75,000 km or 45 Month SERVICE VALIDATION

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of all engine drive belts using gauge. Adjust if necessary.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Drain, flush and refill cooling system with premixed coolant comprising water and recommended inhibitor. Inspect hoses and clamps. Clean outside of radiator and A/C condensor (where fitted).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Air conditioning — check refrigerant charge at sight glass.
	Lubricate throttle linkage.
	Check operation of engine cooling fan.
	Check air preheat control damper assembly for correct cold and hot operation (except EFI).
	Check operation of automatic choke (except EFI).
	Check operation of idle load compensator and adjust if necessary (except EFI).
	Check engine ventilation idle metering orifice for restriction (except EFI).
	Check operation of EGR valve.
	Clean EGR valve and manifold opening.
	Remove throttle body, clean throttle blade and bore of body (EFI only).
	Check operation of auxiliary air valve, auxiliary air valve switch and vacuum limiter valve (EFI only).
	Replace engine air cleaner element.
	Replace in-line fuel filter (1.6 S engine).
	Replace spark plugs. Check resistance of plug leads. Inspect condition of distributor cap and rotor.

	Check ignition timing.
	Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).
	Check engine idle speed and adjust if necessary (EFI only).
	Check evaporative emission canister for air leaks and/or restriction to air flow through the ports.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Replace in-line fuel filter (1.8 E engine).
	Manual transaxle. Check oil level.
	Auto transaxle. Drain fluid, replace filter, refill with specified fluid.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check driveshaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Inspect, repack and adjust rear wheel bearings.
	Hydraulic brake system — drain and refill with specified fluid from freshly opened container. Bleed system and check brake performance on road test.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.
	Lubricate clutch pedal to cable connection.
	Seat belt inspection — check webbing condition, buckle operation, retractor mechanism operation and anchor security. Report any deficiencies.

EXTERIOR VEHICLE OPERATIONS

	Lubricate all locks, exterior door handle pivots, door and rear compartment strikers and hold open devices. Check operation and lubricate hood lock and catch.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

Additional Services Performed: .....

85,000 km or 51 Month SERVICE VALIDATION

Servicing Dealer .....

Signed .....

Date ..... Odometer .....

85,000 km or 51 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.4 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature ..... Date .....

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of camshaft drive belt.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Lubricate clutch cable to fork lever pivot.
	Lubricate auto transaxle control cable pivots.
	Check operation of engine cooling fan.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Manual transaxle. Check oil level.
	Lubricate front suspension control arm ball joints.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check driveshaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Remove rear brake drums. Check linings and drums for condition and wear. Check operation of self adjusting mechanism. Inspect wheel cylinders for leakage.

	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

95,000 km or 57 Months Service Coupon

GMH QUALITY SERVICE & PARTS

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.2 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of all engine drive belts using gauge. Adjust if necessary.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Drain, flush and refill cooling system with premixed coolant comprising water and recommended inhibitor. Inspect hoses and clamps. Clean outside of radiator and A/C condensor (where fitted).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Air conditioning — check refrigerant charge at sight glass.
	Lubricate throttle linkage.
	Check operation of engine cooling fan.
	Check air pre heat control damper assembly for correct cold and hot operation (except EFI).
	Check operation of automatic choke (except EFI).
	Check operation of idle load compensator and adjust if necessary (except EFI).
	Check operation of EGR valve.
	Check operation of auxiliary air valve, auxiliary air valve switch and vacuum limiter valve (EFI only).
	Replace spark plugs, check resistance of plug leads. Inspect condition of distributor cap and rotor.
	Check ignition timing.
	Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).
	Check engine idle speed and adjust if necessary (EFI only).

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.

Additional Services Performed: . . . . . .

Servicing Dealer . . . . . .

Signed . . . . . Odometer . . . . . .

Date . . . . . .

95,000 km or 57 Month SERVICE VALIDATION

	Manual transaxle. Change oil.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check drive shaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Hydraulic brake system — drain and refill with specified fluid from freshly opened container. Bleed system and check brake performance on road test.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.
	Lubricate clutch pedal to cable connection.
	Seat belt inspection — check webbing condition, buckle operation, retractor mechanism operation and anchor security. Report any deficiencies.

EXTERIOR VEHICLE OPERATIONS

	Lubricate all locks, exterior door handle pivots, door and rear compartment strikers and hold open devices. Check operation and lubricate hood lock and catch.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

105,000 km or 63 Months Service Coupon

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.3 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Lubricate clutch cable to fork lever pivot.
	Lubricate auto transaxle control cable pivots.
	Check operation of engine cooling fan.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Manual transaxle. Check oil level.
	Lubricate front suspension control arm ball joints.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check drive shaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Remove rear brake drums. Check linings and drums for condition and wear. Check operation of self adjusting mechanism. Inspect wheel cylinders for leakage.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel nuts.

Additional Services Performed: . . . . . .

105,000 km or 63 Month SERVICE VALIDATION

Servicing Dealer . . . . . .

Signed . . . . . Odometer . . . . . .

Date . . . . . .

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

115,000 km or 69 Months Service Coupon

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 2.8 hrs.

[Add 0.3 hr for Automatic Transmission.
0.2 hr for EFI.]

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of all engine drive belts using gauge. Adjust if necessary.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Drain, flush and refill cooling system with premixed coolant comprising water and recommended inhibitor. Inspect hoses and clamps. Clean outside of radiator and A/C condensor (where fitted).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Air conditioning — check refrigerant charge at sight glass.
	Lubricate throttle linkage.
	Check operation of engine cooling fan.
	Check air preheat control damper assembly for correct cold and hot operation (except EFI).
	Check operation of automatic choke (except EFI).
	Check operation of idle load compensator and adjust if necessary (except EFI).
	Check engine ventilation idle metering orifice for restriction (except EFI).
	Check operation of EGR valve.
	Clean EGR valve and manifold opening.
	Remove throttle body, clean throttle blade and bore of body (EFI only).
	Check operation of auxiliary air valve, auxiliary air valve switch and vacuum limiter valve (EFI only).
	Replace engine air cleaner element.
	Replace in-line fuel filter (1.6 S engine).
	Replace spark plugs. Check resistance of plug leads. Inspect condition of distributor cap and rotor.

Additional Services Performed: . . . . . Odometer . . . . . Date . . . . . Signed . . . . . Servicing Dealer . . . . .

115,000 km or 69 Month SERVICE VALIDATION

	Check ignition timing.
	Check engine idle speed and fast idle speed on choke cam. Adjust if necessary (except EFI).
	Check engine idle speed and adjust if necessary (EFI only).
	Check evaporative emission canister for air leaks and/or restriction to air flow through the ports.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Replace in-line fuel filter (1.8 E engine).
	Manual transaxle. Check oil level.
	Auto transaxle. Drain fluid, replace filter, refill with specified fluid.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check driveshaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Inspect, repack and adjust rear wheel bearings.
	Hydraulic brake system — drain and refill with specified fluid from freshly opened container. Bleed system and check brake performance on road test.
	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check tyre inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.
	Lubricate clutch pedal to cable connection.
	Seat belt inspection — check webbing condition, buckle operation, retractor mechanism operation and anchor security. Report any deficiencies.

EXTERIOR VEHICLE OPERATIONS

	Lubricate all locks, exterior door handle pivots, door and rear compartment strikers and hold open devices. Check operation and lubricate hood lock and catch.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

125,000 km or 75 Months Service Coupon

I authorise performance of the services specified on this coupon. I understand that I will be charged for this work which will take approx. 1.4 hrs.

There will also be a charge for all lubricants and filters, parts used as a result of checks and additional services performed as requested.

Additional Services Requested:

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Signature . . . . . Date . . . . . .

UNDER HOOD OPERATIONS

	Check all fluid levels: Engine oil, brake fluid, coolant, windscreen washer, battery, auto transaxle, power steering. Top up as required with specified fluid.
	Check condition and tension of camshaft drive belt.
	Check condition, attachment and routing of all hoses and pipes in engine compartment. Includes brake, fuel, engine coolant, power steering, air conditioning and emission control systems.
	Check condition and attachment of all air ducts between air cleaner and inlet manifold (EFI only).
	Pressure test cooling system and surge tank cap. Check for leaks.
	Lubricate clutch cable to fork lever pivot.
	Lubricate auto transaxle control cable pivots.
	Check operation of engine cooling fan.

UNDER VEHICLE OPERATIONS

	Change engine oil.
	Change oil filter.
	Manual transaxle. Check oil level.
	Lubricate front suspension control arm ball joints.
	Check all brake and fuel pipes, hoses, and connections for condition, leaks and proper attachment. Correct as required.
	Check steering gear, joints, steering rack boots and all front and rear suspension components for damaged, loose or missing parts, signs of wear or leakage.
	Check driveshaft CV joint boots for proper attachment, condition and grease loss.
	Check exhaust system for leakage, security and alignment. Inspect underbody near exhaust system for any condition which could let exhaust fumes into the passenger compartment. Correct as required.
	Check front disc brake pads for condition and wear (with road wheels removed).
	Remove rear brake drums. Check linings and drums for condition and wear. Check operation of self adjusting mechanism. Inspect wheel cylinders for leakage.

Additional Services Performed: . . . . . .

125,000 km or 75 Month SERVICE VALIDATION

Servicing Dealer . . . . . .

Signed . . . . . Odometer . . . . . .

Date . . . . . .

	Inspect tyres for irregular wear or damage. Check wheels for damage. Report any deficiencies. Check inflation pressures and torque wheel bolts.

INTERIOR VEHICLE OPERATIONS

	Check operation of all lights (interior and exterior).
	Check park brake operation. Adjust if necessary.
	Check clutch pedal height. Adjust if necessary.

ROAD TEST

	Check vehicle on road for braking performance, steering operation, engine response, transmission operation. Check park pawl operation (auto) and neutral start switch (auto). Correct and report any abnormal conditions.

To ensure continued interest in your vehicle, GMH requests that owners who change their name or address, or subsequent owners who purchase the vehicle, fill in and mail one of the attached notices. Please forward to the address shown on the reverse side of the notice.

NOTICE OF NAME/ADDRESS OWNERSHIP CHANGE

NAME/ADDRESS CHANGE ☐ SUBSEQUENT OWNER ☐
PLEASE TICK ☑ APPROPRIATE SQUARE

Owner's Name Mr. Mrs. Miss .....

Address .....

Town .....

State ..... Postcode .....

Registration No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer Specifications Section of this Manual for location of V.I.N.)

NOTICE OF NAME/ADDRESS OWNERSHIP CHANGE

NAME/ADDRESS CHANGE ☐ SUBSEQUENT OWNER ☐
PLEASE TICK ☑ APPROPRIATE SQUARE

Owner's Name Mr. Mrs. Miss .....

Address .....

Town .....

State ..... Postcode .....

Registration No. .....

Vehicle Identification Number (V.I.N.) .....

(Refer Specifications Section of this Manual for location of V.I.N.)

Place in an envelope and mail to:

The Manager — Warranty Administration,
Service Department,
General Motors–Holden's Sales Pty. Limited,
Box 548D, G.P.O.,
Melbourne,
Victoria. 3001.

Place in an envelope and mail to:

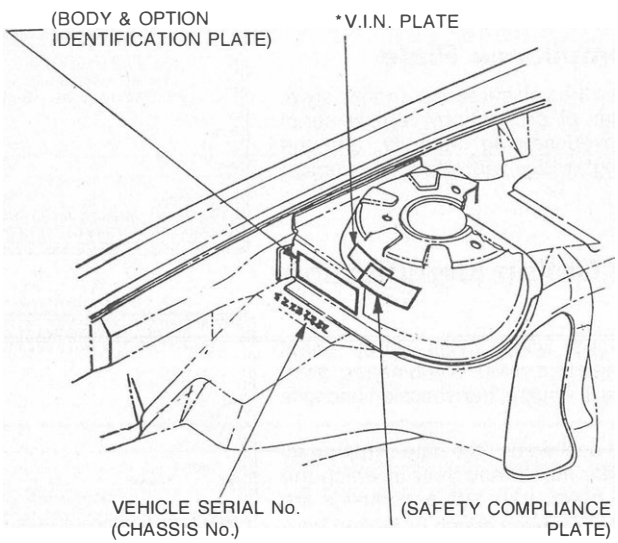
The Manager — Warranty Administration,
Service Department,
General Motors–Holden's Sales Pty. Limited,
Box 548D, G.P.O.,
Melbourne,
Victoria. 3001.

SECTION 7 SPECIFICATIONS AND EMISSION CONTROL SYSTEMS

These specifications are given here for information only. Before using them, see the Cautions and other instructions throughout this manual — the index may help you locate such items. For more information, see the service manual covering the chassis or body part in question. If in doubt about any item ask your GMH Dealer.

IDENTIFICATION NUMBERS AND PLATES

There are several identification numbers and plates on your vehicle that you should be familiar with. Most of these items are shown in the illustration which depicts the area around the driver's side suspension strut tower.



*This plate is located on the left hand side strut tower.

Vehicle Identification Number (V.I.N.) Plate

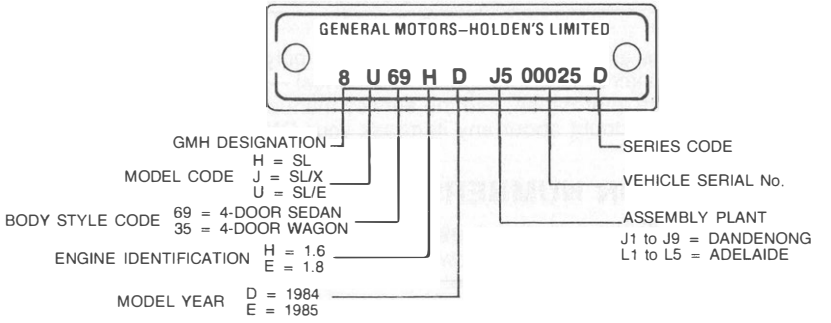
Attached to the top of the panel in front of the left hand (passenger side) strut tower.

The number appearing on this plate completely identifies the vehicle in one coded series of characters.

The significance of these characters or blocks of characters is explained below using an example identification number.

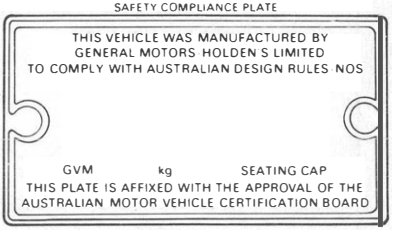
NOTE: The V.I.N. should be recorded on the Vehicle Identification Certificate on the inside of the front cover of this handbook.

VEHICLE IDENTIFICATION NUMBER (V.I.N.) PLATE



Safety Compliance Plate

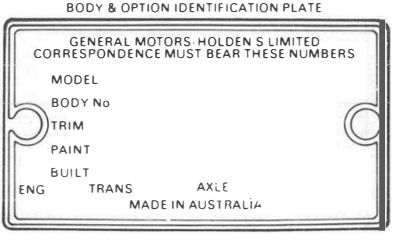
This plate shows the vehicle series, model, style, month and year of production, vehicle serial number, approved seating capacity, and the Australian Design Rules with which the vehicle complies.


SAFETY COMPLIANCE PLATE
THIS VEHICLE WAS MANUFACTURED BY
GENERAL MOTORS HOLDEN'S LIMITED
TO COMPLY WITH AUSTRALIAN DESIGN RULES NOS
GVM kg SEATING CAP
THIS PLATE IS AFFIXED WITH THE APPROVAL OF THE
AUSTRALIAN MOTOR VEHICLE CERTIFICATION BOARD

Body and Option Identification Plate

This plate shows body styles, body serial number, paint and trim colour combination, paint number, date built, engine, transmission and axle ratio options.

The built date is defined as "the date of manufacture" by calendar month and year in which the body shell and power train sub-assemblies are cojoined and the vehicle is driven or moved from the production line.



Vehicle Serial Number (Chassis Number)

This number is stamped into the wheelhouse panel just in front of the right hand side strut tower. It is a sequential production serial number peculiar to each assembly plant.

Engine Number

Stamped on the front face of the engine block adjacent to engine oil level indicator.

Model Identification

Model range	Model* group	Style* number	V.I.N. Code number
Camira sedan SL	8JH	69	8H69
Camira wagon SL	8JH	35	8H35
Camira sedan SL/X	8JJ	69	8J69
Camira wagon SL/X	8JJ	35	8J35
Camira sedan SL/E	8JU	69	8U69
Camira wagon SL/E	8JU	35	8U35

*NOTE: Model group and style numbers may have 3 numbers following. These refer to option packs.

Engine Data

	1.6 S	1.8 E
Number of cylinders	4	4
Bore diameter	80 mm	84.8 mm
Stroke	79.5 mm	79.5 mm
Piston displacement	1.598 litres	1.796 litres
Taxable horsepower (RAC or SAE)	15.87	17.75
Kilowatts DIN @ rpm	64 kW at 5800 rpm	85 kW at 6200 rpm
Torque Nm DIN @ rpm	125 Nm at 3800 rpm	151 Nm at 3000 rpm
Compression ratio	9.2	9.5
Octane requirement (research method)	97	97
Idle speed	850 to 900 rpm	825 to 875 rpm
Valve clearance	Non adjustable	Non adjustable
Cylinder numbering (from pulley end)	1, 2, 3, 4,	1, 2, 3, 4,
Firing order	1, 3, 4, 2	1, 3, 4, 2
Spark plug gap	0.7-0.8 mm	0.7-0.8 mm
Spark plug type	AC R42XLS	AC R42XLS
Ignition Timing	10° BTDC	10° BTDC
Idle mixture	Idle mixture and basic throttle settings have been preset and sealed. Removal of mixture screw caps and alterations to other than specified idle CO settings may violate state laws.	

Transaxle Specifications

Type	Manual 4 Speed — MM4	Manual 5 Speed — MM5	Automatic 3 Speed — M34
Gear Ratios			
1st	3.42	3.42	2.84
2nd	1.95	2.16	1.60
3rd	1.28	1.48	1.00
4th	0.89	1.12	—
5th	—	0.89	—
Rev.	3.33	3.33	2.07
Final Drive Ratio	3.94	3.94	3.33

Capacities

	Litres
Engine Oil	
Service refill	3.0
Add for filter — approx.	0.25
Manual transaxle	
Incl. differential 4 & 5 speed	2.0
Automatic transaxle	
Incl. differential	
Service refill — approx.	3.8
Dry	5.7
Cooling system	
Manual	8.2
Automatic	8.0
Pressure rating of cooling cap	120 kPa
Fuel tank	
All models — approx.	60.0

LUBRICANT AND FLUID SPECIFICATIONS

ITEM	FLUID LUBRICANT/SPECIFICATION
Engine Oil	Premium quality SF grade 20W-40 viscosity classification.
Engine Coolant	(A) Corrosion Protection: Mixture of water and corrosion inhibitor meeting GMH Spec. HN1109 (GM Part No. M39060). Use 3% HN1109 by volume. (B) Anti-Freeze and Corrosion Protection: Mixture of water and good quality ethylene glycol base anti-freeze conforming to GM Spec. 1899M. Use 35% anti-freeze by volume.
Manual Transaxle	80W Oil to GMH Specification HN1820.
Automatic Transaxle	*DEXRON IID automatic transmission fluid only. (GM Part No. 9985286) *DEXRON IID is a registered trademark of General Motors Corporation.
Power Steering System	DEXRON IID automatic transmission fluid (see above).
Manual Steering System	For Service Replacement only use EP Semi Fluid Lithium Base, Type O Grease.
Brake Master Cylinder	Heavy Duty Brake Fluid meeting GM Spec. HN1796 (GM Part No. 92025647).
Front Suspension Control Arm Ball Joints	Molybdenum Disulphide Grease to GMH Spec. HN1271.
Rear Wheel Bearings	Special Grease, non-soap type to GMH Spec. HN1227.
All lock cylinders (including Ignition and Steering Lock)	Powdered Graphite (applied through key aperture — do not oil).
Engine Hood Catch and Lock Engine Hood Hinge Door Hinge and Hold-Opens Rear Compartment Lid Hinge Rear Compartment Lid Lock	No. 1 Lithium (Zinc Oxide) Grease to GMH Spec. HN1225.
Door Lock Fork Door Lock Striker Bolt	Solidoil (GM Part No. M33028) (Use sparingly on working surfaces.)
Clutch and Brake Pedal pivots Clutch Cable Clevises Parking Brake system, pivot and guides	Molybdenum Disulphide Grease to GMH Spec. HN1271.
Throttle Control Pivot Points	No. 1 Lithium Grease to GMH Spec. HN1225.

NOTE: Lubricant Specifications for components not listed above are detailed in the Camira Service Manual.

Approximate Vehicle Dimensions

(In millimetres unless shown otherwise)

ITEM	SEDAN			WAGON		
	SL	SL/X	SL/E	SL	SL/X	SL/E
Length	4409	4409	4409	4354	4354	4354
Width	1668	1683	1683	1668	1688	1688
Height*	1345	1344	1337	1345	1344	1338
Wheelbase (at kerb mass)	2577	→	→	→	→	→
Track (at kerb mass)	1403	→	→	→	→	→
Turning Circle						
Kerb to kerb (metres) Manual	10.2	→	→	→	→	→
Power	10.6	→	→	→	→	→
Wall to wall (metres) Manual	10.9	→	→	→	→	→
Power	11.3	→	→	→	→	→
Minimum Running Ground Clearance*	112	110	104	113	111	106

*Dimensions shown are for vehicles at kerb mass plus the following loads:
Sedan — 4 occupants @ 68 kg each.
Wagon — 4 occupants @ 68 kg each plus 45 kg luggage.

Approximate Vehicle Mass

Model	*Kerb Mass (kg)
Camira SL sedan	1021
Camira SL/X sedan	1032
Camira SL/E sedan	1050
Camira SL wagon	1062
Camira SL/X wagon	1079
Camira SL/E wagon	1094

*The Kerb Mass represents a standard unloaded vehicle without any options but with a full tank of petrol. Fitting options such as automatic transaxle, air conditioning, etc. will alter the kerb mass of your vehicle.

Wheels and Tyres

NOTE:

1. Always refer to the tyre placard in the glove box for specifications for your vehicle.
2. If replacing the wheels on your Camira with non standard wheels please refer to the Wheel Replacement CAUTION given in Section 6A.

Model	Wheel	Tyre size	Recommended Cold Inflation Pressure — kPa (psi)			
			Up to 3 Passengers		Up to Maximum Load	
			Front	Rear	Front	Rear
Sedan and wagon SL and SL/X	5.50JJ x 13" steel	P175/75SR13	200 (29)	200 (29)	240 (35)	240 (35)
		BR70H13	200 (29)	200 (29)	220 (32)	220 (32)
		AR78S13	200 (29)	200 (29)	220 (32)	220 (32)
Sedan and wagon SL/E	5.50JJ x 14" Cast alloy	P185/65HR14	200 (29)	200 (29)	240 (35)	240 (35)
		175/70SR14	200 (29)	200 (29)	240 (35)	240 (35)
		185/65R14-85S	200 (29)	200 (29)	240 (35)	240 (35)
		P195/60HR14	200 (29)	200 (29)	240 (35)	240 (35)
		195/60HR14	200 (29)	200 (29)	240 (35)	240 (35)

Wheel Bolt Torques

Recommended wheel bolt torque is 95-100 Nm.

Bulb Specifications

Bulb	GMH Part No.	Base type	Rating
Headlamps - Hi/Lo Beam Outboard	11071361	H4	60/55w
- Driving Inboard	11063979	H3	55w
Parking (Front)	9421330	Wedge	5w
Turn signal	9417866	Std. parallel pin	21w
Back up lamp	9417866	Std. parallel pin	21w
Stop and tail	7125845	Std. offset pin	32/3cp
Rear compartment lamp	11030669	Festoon	10w
Number plate lamp (sedan)	SP1467	Std parallel pin	6w
Number plate lamp (wagon)	9421330	Wedge	5w
Dome lamp	5821940150	Festoon	10w
Glove box	11015639	Festoon	5w
For specifications of all instrument panel illumination and warning lights see your GMH Dealer or the relevant Service Manual.			

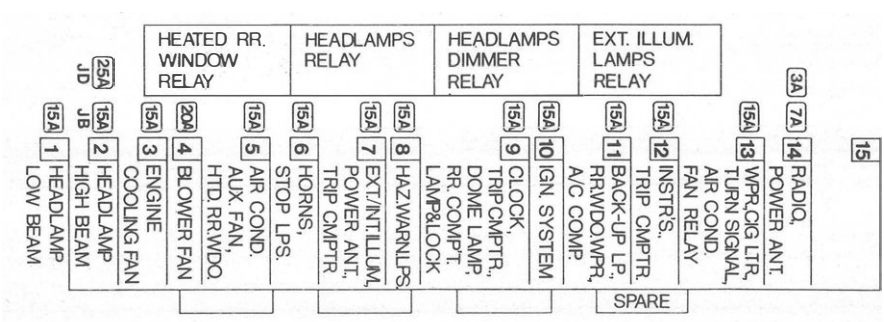
Battery Specifications

Engine	GMH Part No.	Voltage	RATED* CURRENT — minimum	RATED* CAPACITY — minimum	20 Hour Discharge Capacity*
1.6 S	92024508	12	280 amps	50 minutes	33 Amp. Hrs.
1.8 E	92024251	12	320 amps	60 minutes	40 Amp. Hrs.

*To A.S. 2149.

Fuses and Relays

The layout of fuses and relays is also shown on the inside of the fuse panel cover viz;


HEATED RR. WINDOW RELAY
HEADLAMPS RELAY
HEADLAMPS DIMMER RELAY
EXT. ILLUM. LAMPS RELAY
25A JD
15A JB
15A 1 HEADLAMP LOW BEAM
15A 2 HEADLAMP HIGH BEAM
15A 3 ENGINE COOLING FAN
20A 4 BLOWER FAN
15A 5 AIR COND. AUX. FAN, HTD.RR.WDO.
15A 6 HORNS, STOP LPS.
15A 7 EXT/INT.ILLUM, POWER ANT., TRIP CMPTR.
15A 8 HAZ.WARN.LPS.
15A 9 CLOCK, TRIP CMPTR., DOME LAMP, RR. COMPT. LAMP&LOCK
15A 10 IGN. SYSTEM
15A 11 BACK-UP LP., RR.WDO.WPR., A/C COMP.
15A 12 INSTR'S. TRIP CMPTR.
15A 13 WPR.CIG LTR, TURN SIGNAL, AIR COND. FAN RELAY
3A 7A 14 RADIO, POWER ANT.
15
SPARE

EMISSION CONTROL SYSTEMS

Your vehicle is fitted with emission control systems which are designed to reduce the amount of hydrocarbons (HC), carbon monoxide (CO), and oxides of nitrogen (NO_x) that are emitted from the engine and fuel system into the atmosphere. Hydrocarbons and oxides of nitrogen, when exposed to sunlight under certain conditions, produce photochemical smog. In addition, carbon monoxide is toxic when it becomes highly concentrated in the air.

The three major emission control systems fitted to your vehicle are:

1. **Evaporative Emission Control System**
   This system is designed to prevent the escape of fuel vapours from the fuel system and recycle them through the normal combustion process.
2. **Crankcase Emission Control System**
   This system is designed to prevent blow-by gases from escaping into the atmosphere and recycle them through the combustion process.
3. **Exhaust Emission Control System**
   The various components of this system operate collectively to limit HC, CO and NO_x emissions in the exhaust gas. The 1.6 S and 1.8 E engines are each fitted with specific controls for controlling these emissions, viz;

   1.6 S — Carburettor, Idle Stop Solenoid, automatic choke, air pre-heat, pulsair, idle load compensator, exhaust gas recirculation, spark advance control, cooling system thermostat.

   1.8 E — Electronic fuel injection, exhaust gas recirculation, auxiliary air valve, vacuum limiter valve, electronic advance ignition, cooling system thermostat.

For detailed information on the operation, servicing and repair procedures for these systems, refer to the appropriate service manual for your vehicle.

OWNER RESPONSIBILITY

Your vehicle's emission control systems have been designed to meet the requirements of Australian Design Rules and State Regulations.

To ensure that these components achieve their purpose of controlling the emission of pollutants to the atmosphere, the engine or exhaust system of your vehicle must **not** be modified in any way. Any departure from the manufacturer's design specifications may increase the emissions or otherwise defeat the intent of the regulations.

IMPORTANT: ANY PERSON WHO REMOVES, MODIFIES OR OTHERWISE RENDERS INEFFECTIVE ANY EMISSION CONTROL COMPONENTS FITTED TO A VEHICLE WILL BE CONTRAVENING THE RELEVANT REGULATIONS AND BE GUILTY OF AN OFFENCE UNDER THE REGULATIONS. ANY PERSON WHO OWNS AND/OR OPERATES SUCH A VEHICLE COULD ALSO BE GUILTY OF AN OFFENCE UNDER THE REGULATIONS.

MAINTENANCE REQUIREMENTS

To ensure continuing compliance with the regulations it will be necessary for you to maintain your vehicle's emission control systems in accordance with the instructions given in the GMH Maintenance Plan (refer Section 6B) and the relevant Service Manuals.

It is recommended that the necessary servicing be performed by an authorised GMH Dealer who has the specialised servicing equipment and trained personnel available to ensure that the adjustments and services specified are carried out.

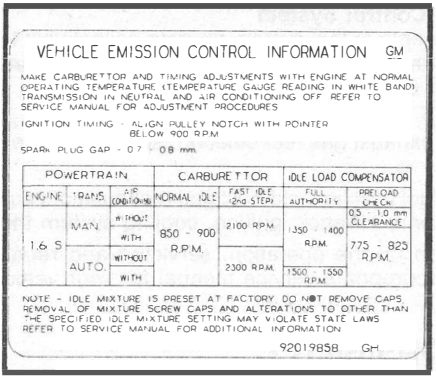
SERVICE REPLACEMENT PARTS

To ensure that your vehicle complies with the regulations it is imperative that any replacement parts used for maintenance services or for the repair of the emission control systems be new GM parts. Use of replacement parts other than genuine GM parts may impair the effectiveness of such systems.

VEHICLE EMISSION CONTROL INFORMATION LABEL

This label which is located in the engine compartment, contains all the necessary information required to correctly tune the engine in your vehicle.

The 1.6 S engine label is located on the driver's side inner fender and the 1.8 E engine label is located on the upper radiator support panel.



VEHICLE EMISSION CONTROL INFORMATION GM

MAKE CARBURETTOR AND TIMING ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE (TEMPERATURE GAUGE READING IN WHITE BAND) TRANSMISSION IN NEUTRAL AND AIR CONDITIONING OFF. REFER TO SERVICE MANUAL FOR ADJUSTMENT PROCEDURES

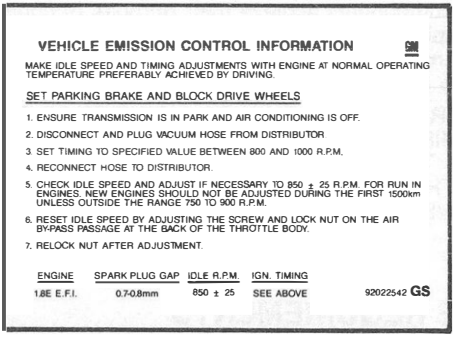
IGNITION TIMING - ALIGN PULLEY NOTCH WITH POINTER BELOW 900 R.P.M.

SPARK PLUG GAP - 0.7 - 0.8 mm.

POWERTRAIN			CARBURETTOR		IDLE LOAD COMPENSATOR	
ENGINE	TRANS.	AIR CONDITIONING	NORMAL IDLE	FAST IDLE (2nd STEP)	FULL AUTHORITY	PRELOAD CHECK
1.6 S	MAN.	WITHOUT	850 - 900 R.P.M.	2100 R.P.M.	1350 - 1400 R.P.M.	0.5 - 1.0 mm CLEARANCE
		WITH				775 - 825 R.P.M.
	AUTO.	WITHOUT		2300 R.P.M.		
		WITH			1500 - 1550 R.P.M.	

NOTE - IDLE MIXTURE IS PRESET AT FACTORY. DO NOT REMOVE CAPS. REMOVAL OF MIXTURE SCREW CAPS AND ALTERATIONS TO OTHER THAN THE SPECIFIED IDLE MIXTURE SETTING MAY VIOLATE STATE LAWS. REFER TO SERVICE MANUAL FOR ADDITIONAL INFORMATION.

92019858 GH



VEHICLE EMISSION CONTROL INFORMATION GM

MAKE IDLE SPEED AND TIMING ADJUSTMENTS WITH ENGINE AT NORMAL OPERATING TEMPERATURE PREFERABLY ACHIEVED BY DRIVING.

SET PARKING BRAKE AND BLOCK DRIVE WHEELS

1. ENSURE TRANSMISSION IS IN PARK AND AIR CONDITIONING IS OFF.
2. DISCONNECT AND PLUG VACUUM HOSE FROM DISTRIBUTOR.
3. SET TIMING TO SPECIFIED VALUE BETWEEN 800 AND 1000 R.P.M.
4. RECONNECT HOSE TO DISTRIBUTOR.
5. CHECK IDLE SPEED AND ADJUST IF NECESSARY TO 850 ± 25 R.P.M. FOR RUN IN ENGINES. NEW ENGINES SHOULD NOT BE ADJUSTED DURING THE FIRST 1500km UNLESS OUTSIDE THE RANGE 750 TO 900 R.P.M.
6. RESET IDLE SPEED BY ADJUSTING THE SCREW AND LOCK NUT ON THE AIR BY-PASS PASSAGE AT THE BACK OF THE THROTTLE BODY.
7. RELOCK NUT AFTER ADJUSTMENT.

ENGINE	SPARK PLUG GAP	IDLE R.P.M.	IGN. TIMING
1.8E E.F.I.	0.7-0.8mm	850 ± 25	SEE ABOVE

92022542 GS

SECTION 8

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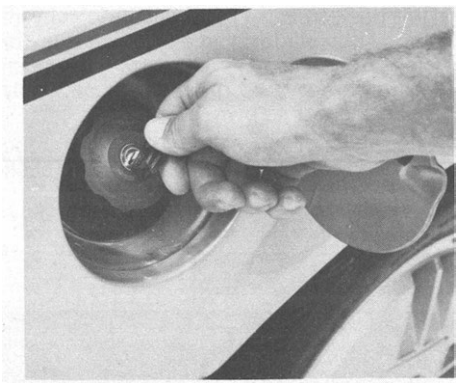
SECTION 9 SERVICE STATION INFORMATION AND ACCIDENT PROCEDURES

Fuel Cap



The fuel cap is located behind a hinged door on the driver's side just behind the rear wheel arch.

To remove the fuel cap turn it anti-clockwise.

If your vehicle has a locking fuel cap then use either key to unlock it before turning cap in an anti-clockwise direction.

Fuel Requirements

This vehicle is designed to operate on a good quality clean fuel of 97 Octane Rating (Super).

The use of a fuel which is too low in octane rating (anti-knock property) will result in "Detonation" (a metallic rapping noise generated during the combustion process). If "Detonation" persists, consult an authorised GMH Dealer. Continued operation of an engine which exhibits symptoms of heavy "Detonation" may result in damage for which General Motors-Holden's Limited is not responsible.

Filling the Fuel Tank

CAUTION: Petrol is extremely flammable and highly explosive under certain conditions. Always stop the engine and do not smoke or allow open flames or sparks near the vehicle when refuelling. If petrol fumes are noticed while driving, the cause should be determined and corrected without delay.

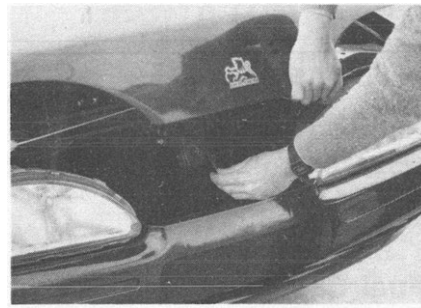
Overfilling of the fuel tank can affect the Evaporative Emission Control System.

To avoid this, the following procedure should be followed:

Fuel tanks should always be filled at the intermediate or fast fill rate. After initial shut-off (or vent blow back) no further fuel should be added. This retains the tank's ability to accommodate fuel expansion.

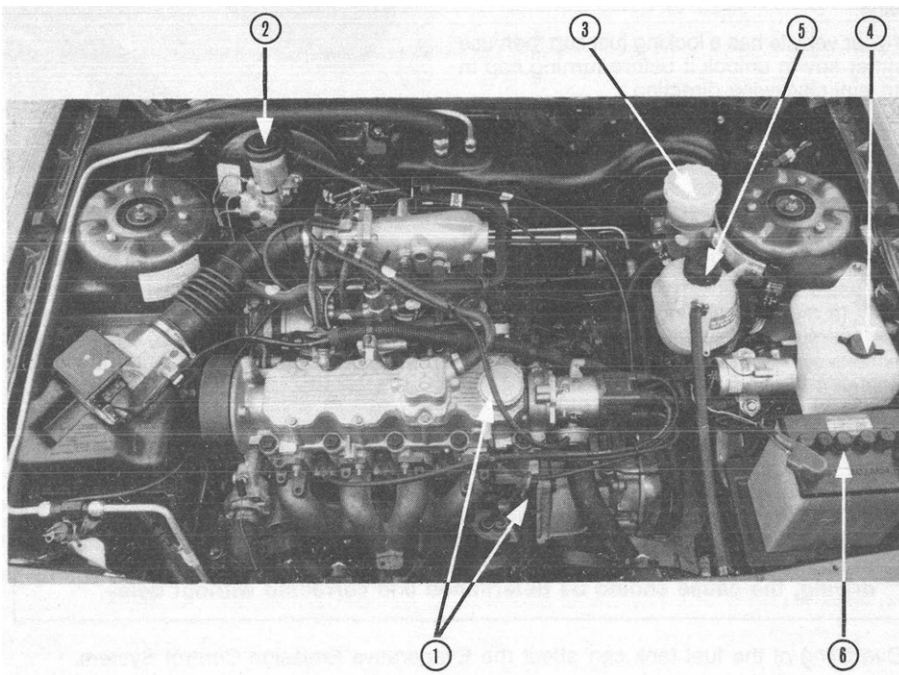
NOTICE: If petrol is spilt on the paintwork it should be flushed off immediately with clean water. Failure to do this could result in staining and/or softening of the paintwork particularly when the vehicle is new and the paint is still 'curing'.

Engine Hood Lock and Catch



To open the engine hood, pull hood lock release located beneath the instrument panel, to the right of the steering column. This allows the hood to release but is prevented from opening by the safety catch. To open completely, reach in between the bumper and hood and move safety catch to the right. Hold in this position, raise hood and support by inserting support rod into the provided slot. For closing, return support rod to its resting position and lower hood gradually to be finally dropped under its own weight.

Always check to make certain hood is properly secured. If necessary, check that release handle below the instrument panel is pushed-in to its normal position.



When refuelling, check the following (For fluid and lubricant specifications refer to page 153).

1. **ENGINE OIL.** Check the oil level as the last operation when stopped for fuel. Maintain oil level between top and bottom marks on the dipstick. (For important information on engine oil and viscosity grades, refer to Section 6A of this handbook.)
2. **BRAKE FLUID.** Check brake fluid level by looking at 'see through' reservoir. Refer to Section 6A for important information on topping up level.

3. **POWER STEERING (where fitted).** Check that fluid level is between maximum and minimum marks on reservoir.
4. **WINDSHIELD WASHER/TAILGATE WASHER (Wagon).** Check the washer reservoir fluid levels regularly. For best results use a washer fluid additive such as 'Optikleen' (GM Part No. M37933).
5. **ENGINE COOLANT.** Check the coolant level by looking at the 'see through' surge tank. Use caution if removing cap when the engine and radiator are hot. (For details on filling procedures and recommended coolant refer to "Engine Cooling System" in Section 6A of this handbook.)
6. **BATTERY ELECTROLYTE.** Maintain level at recommended height by adding distilled water.

NOTE: If your vehicle is fitted with a 'Maintenance Free' battery it has no filler cap and never needs to be topped up. (Refer to Section 6A for additional information.)

Tyre Pressures

Check tyre pressures at least weekly (including the spare). Keep them inflated to the pressures shown on the Tyre Placard in the glove box.

IMPORTANT: ALLOWANCE MUST BE MADE FOR INFLATION PRESSURES IF CHECKING TYRES 'HOT'. REFER TO SECTION 6A FOR DETAILS.

ACCIDENTS

All motorists are advised to learn what to do at the scene of an accident, particularly where persons are injured. Injured people can choke to death if their air passages are not cleared. They can bleed to death unless the bleeding is stopped. They may require mouth-to-mouth resuscitation, may have to be moved, even though badly injured. It is important that you understand how to avoid further damaging an injured neck or back or other broken limbs.

The following notes may help.

- **Part 1. Accident — being involved.**
- **Part 2. Accident — being a witness.**
- **Part 3. Medical assistance.**

Part 1. Accident — being involved

If you are involved in an accident you are advised to do as follows:

Stop immediately.

Remember that time is vital. Remain calm and alert. Think quickly and clearly.

Give all possible assistance to all injured persons. (See Part 3 Medical Assistance).

Send for police and ambulance if anyone has been injured. Send information as accurately as possible. Give the exact location, the number of injured people and a brief report on the overall situation.

Perhaps take charge of the situation.

Warn all other traffic approaching the scene. Turn off ignition switches. Stop any smoking near spilt petrol. In darkness, try and light up the area to warn others.

Clear the road of accident debris.

Exchange your name, address, vehicle registration number and the vehicle owner's name and address with the other parties involved in the accident.

If damage to property only has occurred, report the facts to the owner of the damaged property or to his or her representative; to any police present at the scene or to the nearest Police Station.

Try and note all important facts because such details may be important if needed later.

Part 2. Accident — being a witness

If you witness a road accident or it becomes your task to stop and help at the scene of an accident, do this:

Keep in mind that an observant witness can prove most helpful. Some day you yourself might be very glad of help from a witness.

DO NOT stop at the scene of an accident *just to be a spectator.*

Where other people are already in attendance and giving assistance, **you should stop only if you can contribute assistance.**

Give what assistance you can to any injured persons. (See Part 3 Medical Assistance.)

Follow most of the steps suggested in Part 1. Perhaps you may have to take charge of the accident situation.

Part 3. Medical assistance

Keep calm and think clearly.

Your experience may not be much but do your best. Don't just stand by and let an injured person die.

- Look after the unconscious person first. Check for breathing. If no breathing, then check if air passages are clear, i.e. nose and mouth. Use your fingers to clear air passages if necessary. If the air way is clear then mouth-to-mouth resuscitation may be needed at once.

Unconscious people can choke.
Carefully turn to one side.
Tilt the head back slightly.
Wipe out the mouth with your finger to remove blood, vomit, broken teeth or dentures.

- You must be most careful in moving an injured person. Often it is best not to move at all but, in conditions of danger, that is not always possible. Serious and permanent damage can be done to an injured neck or back if not supported during movement. NEVER BEND A NECK OR BACK. KEEP THEM STRAIGHT. All injured limbs require support when an injured person has to be moved.
- Provided it is not dangerous to do so because of other injuries, an unconscious person will do best in the "coma position" illustrated here.

Lay the person on one side and — if will not aggravate any injuries — then: Bend the uppermost knee until the thigh is at right angle to body.
Bend the uppermost arm and elbow so that the hand lies near the face.
Gently pull the underneath arm so that it rests straight on the ground free of any body weight.

- Try to stop bleeding by applying direct pressure, using your hands, or by pressing torn flesh together. Use any clean cloth available. Fold cloths to make pads. If necessary, press one pad on top of another. Keep pressure around edges of a wound BUT NEVER USE A TOURNIQUET.

Shock may be treated by reassurance, relieving pain, controlling any bleeding and keeping the injured person warm *but not hot.* Best not to give any fluids and NEVER ALCOHOL.

- If the injured person is in danger and has to be moved, try and have three or four people help and concentrate on not bending the neck, spine and injured limbs. **Keeping the neck and spine straight is most important.**

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